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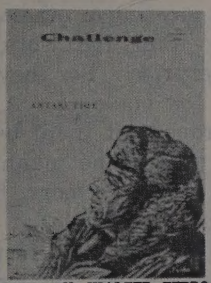

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a personal note

from the editor

world between the armory and the Waldorf

SINCE LIFE DURING the next twelve months will be pretty much what it was during the past twelve, it is perhaps fitting that we start January 1956 with the same discussion that held our attention in December 1955—namely, labor-management relations. New York City recently saw some important developments in this regard, what with the National Association of Manufacturers meeting at the Waldorf-Astoria and the AFL and CIO joining hands at the 71st Infantry Regiment Armory. Some people might think it significant that the businessmen chose to hold their confab in a luxury hotel, while the workingmen gathered in the bare surroundings of an enclosed drillfield.

Actually, hard and fast conclusions cannot be drawn from such evidence. The manufacturers were meeting for their sixtieth annual Congress of Industry, a relatively quiet affair which can be housed in a hotel ballroom. The union members were holding a very active convention, the first of the newly merged AFL-CIO. Such a gathering would find an armory more suitable for its purposes than a ballroom.

Besides, businessmen and union members are creatures of habit, just like everyone else. When businessmen hold a meeting or otherwise leave themselves open to public scrutiny, they want the world to understand that they are *successful* men of enterprise. So, they do things with an expensive flair and a penchant for opulence. After all, a man of business must appear to be prosperous, lest there be an unfavorable reflection on the popularity of the product he manufactures. As for the union delegates who gathered at the armory, they supposedly represented the poor, mistreated laboring people of the country. To be frugal at these meetings and conventions is to respect the resources of the "little people" who pay dues to keep the union alive against attacks from the entrenched. Well, that is the idea, anyway. It might be pointed out, however, that some union presidents have offices and headquarters which outplush anything that Mr. Big of Gigantic Enterprises has. Also, we counted many big, expensive-looking cigars being sported about by the union hierarchy, but surpris-

ingly few among the manufacturers, who have sometimes been portrayed as heartless, cigar-chewing monsters. Therefore, it is difficult to say just what might be deduced from the habits and mannerisms of businessmen and union men.

The AFL-CIO convention lasted four days; the NAM gathering three days. The meetings ran concurrently for two days. And that was the extent of the harmony note that could be sounded. Although the Waldorf-Astoria and the 71st Infantry Regiment Armory are only sixteen blocks apart, the NAM and the AFL-CIO seemed worlds apart in their expressed opinions. At the last moment, there was a clash of personalities; heated words were spoken; and suddenly the businessmen and the union men were back to the good, old days, when no one would dare suggest that there was common ground for understanding and agreement.

IT WAS NOT planned that the first convention of a merged AFL-CIO and the sixtieth annual meeting of the NAM be held in the same city at the same time. It just happened that way. The coincidence could not escape attention, least of all the attention of businessmen who, while listening to forecasts of a bright business future, could at the same time sense the applause of delegates sixteen blocks away pledging themselves to a vast new union membership drive. Simultaneously, the gathering at the armory followed the proceedings at the Waldorf—the predictions of an expanding economy, of new business heights, more national wealth. The delegates were determined to win for the AFL-CIO a strong voice in how that wealth should be distributed.

In this setting, George Meany, his labor convention work done, appeared before the NAM group as an invited speaker. His remarks were conciliatory, but it must be said that he had spoken in a different spirit at the armory. Then the NAM speaker followed with a few traditional, uncomplimentary remarks about unions. That did it. The accusing finger was pointed from both sides. The party was over.

If many of the NAM members who witnessed this episode were left with a feeling of regret, something constructive might come out of it yet. If union members who heard about the incident interpret it as the passing thing it should be, and if they believe that the olive branch should be offered more than once, then this retrogression to the 1930s will be a short-lived thing.

Surely someone somewhere must realize that two parts of the same body cannot afford *not* to get along.—H.B.

Challenge Notes

An important wedding; measuring productivity; artifical minks.

WEDDINGS are always important occasions, giving rise to a multitude of mixed emotions. The bride and groom, it is true, are generally happy about the whole thing. But among the onlookers there are always a few who think the ceremony should never have taken place.

The doubters have been particularly loud in their objections to the recent marriage of the American Federation of Labor and the Congress of Industrial Organizations. The union (!) was finally consumated last month after an on-again-off-again courtship of more than eight years. The parties involved seemed happy enough—at least, for the time being. Other groups—notably some businessmen, political analysts and economists—have been visibly disturbed.

Their objections center around what the marriage promises to beget. The combined membership of the merged AFL-CIO is currently about fifteen million. But, say the critics, the AFL-CIO has already claimed that it can double that figure in "the years immediately ahead." Obviously, then, say these critics, the union cannot at present speak for all or anywhere near all the workers in the country. On the other hand, as the single largest labor organization in the nation (and, indeed, in the world), it will tend to be accepted as labor's spokesman in *all* matters. Even more important, it, rather than its membership, will be wooed by political parties. Eventually, according to these critics, there may even arise a "labor" party similar to the one in England.

These fears seem a little premature, to say the least. No union directs, or can hope to direct, the votes of its membership, and union leaders and politicians know this full well. Even in the economic sphere, there are widely opposed economic interests within labor ranks which no unified policy from the top can ever completely reconcile. As the union's membership rises, moreover, these differences will increase. In the highly differentiated industrial

economy that we live in, "labor" votes not as a class but as the rest of us do—as individuals.

Measuring Productivity

IF YOU want to do some guessing (and who doesn't?) about our future rate of expansion, one of the most significant statistics to look for is that on productivity, or output per manhour.

Last month the Bureau of Labor Statistics published a study which illustrates some of the problems involved in determining productivity. Contrary to expectations, the figures indicate that (except for the period immediately after World War II, when productivity lagged) output per manhour has averaged around 2.5 per cent per year since 1909. True, the figures only take us through 1953, and though there are indications that the widespread application of automation since 1953 may have resulted in "the breakthrough of the productivity frontier", they are surprising in view of the tremendous production records we have been chalking up.

Actually, economists agree that interpreting these figures can be a tricky business. There are, for example, quality improvements which productivity figures cannot measure. It may take the same number of manhours to produce a TV set today as in 1945, but if today's set plays better and lasts longer, that is "productivity" in the sense that a given manhour yields *more* TV today than it did in 1945. Unfortunately, we have not yet discovered a satisfactory way of measuring such qualitative improvements.

Artificial Minks

NEXT to a diamond, a mink has long been considered a girl's best friend. Last year, General Electric came up with the first "genuine" artifically made diamond. At that time, there was a good deal of speculation about what this would do to the engagement ring business. Up to now, it has done nothing since the GE diamond is for industrial uses only.

The mink situation, however, may prove considerably more serious. Princeton Knitting Mills has come up with a new fabric—they call it "mutation"—which, they claim, cannot be distinguished from genuine mink without the aid of a magnifying glass.

So far, the mink manufacturers have faced the situation calmly. Anybody with the money to buy a genuine mink will continue to buy the real article, they say. This may be true, but we're putting our money on chinchilla. —M. K.

The Great Balancing Act

by Edwin L. Dale

No one can be sure just what a balanced budget is, because it is difficult to tell which expenditures must equal what receipts

WITH THE federal government buying about 12 per cent of the nation's goods and services, besides distributing billions of dollars annually to veterans, aged people and many others, the presentation of the annual federal budget has come to be viewed as one of the major economic events of the year. Another one will be sent to Congress by the President this month.

Economists and businessmen look to the budget for answers to such questions as the following:

Spending. Obviously, a downswing in governmental expenses tends to reduce over-all activity in the economy—if the private sector is unable to take up the slack. We might add, parenthetically, that it also opens the way for tax cuts. The reverse holds true if expenditures are increased.

Receipts. Our whole tax philosophy is hammered out in debates over the tax proposals contained in each annual budget. These days not a year goes by without tax legislation of some kind. And the question is not only the *amount* or *level* of taxes, but also from whom the necessary money is to be raised.

Balance, surplus or deficit? If the government fails to take in as much as it spends, the difference must be made up by borrowing. Generally speaking, such a deficit tends to be inflationary—or, at least, "reflationary," if the economy happens to be in a recession. A surplus in the budget acts as something of a drag on the economy. But as we shall see, these terms have to be watched very carefully, for the budget has grown so complicated that the true economic impact of federal financial operations is often obscured.

Appropriations. An aircraft manufacturer, interested in gov-

ernment contracts, will not look for Air Force spending figures which are based almost entirely on payment for goods ordered in the past. What will interest him is the appropriation figure for *new procurement*, though these sums may not be listed as government spending for another year or two.

While the budget can tell us a lot about these things, it cannot tell us all that we want to know. Sometimes, indeed, it may tell us the wrong thing.

To begin with, there are three budgets, not one—although the term "budget" is often used interchangeably to cover all three. Budget Number One, technically called the "administrative budget," lists most, but not all, of the expenses which the government *estimates* it will incur in the fiscal year ahead. The estimate which the President will submit to Congress this month will cover the fiscal year from July 1, 1956 to June 30, 1957, and will be on the order of 63 billion dollars.

Now, this estimate can prove to be wildly wrong. Although action by Congress on the various appropriations bills cannot alter it significantly, a wide variety of things can, ranging from the weather's effect on farm crops to the effect of metals shortages on tank production. How many older people will need relief? How many veterans will go to college under the G. I. Bill of Rights? Will Congress raise the cost of postage stamps? The answers to these questions can influence the estimates profoundly.

We said that this budget—the one usually talked about as "the budget"—does not list *all* federal expenses. About seven billion dollars a year of cash outlay by the government doesn't go into this budget at all. Included in this category are payments under social security (old age and survivors insurance), veterans' life insurance, unemployment insurance and a few other special accounts which are set up in the form of trust funds. These trust funds have their own receipts, from special taxes or premiums, and their own expenditures—all outside the regular budget.

Budget Number One also estimates total tax receipts against total expenditures (again leaving out trust fund receipts). This estimate generally depends on what action Congress decides to take on the President's tax proposals. Together, the receipts and expenditures figures are supposed to tell us whether or not we are going to have a "balanced budget"—though by the time the fiscal year is over eighteen months

George L. Dale is a member of the staff of the Washington Bureau of The New York Times.

later the original figures on which this conclusion was based are sure to be proved wrong. Still, the figures are the best the government has on which to base its tax proposals.

Budget Number Two is the *request* for appropriations. This has surprisingly little to do with the spending total for the year in question, because as much as half of the annual appropriations are spent in later years. Most of the remainder is virtually "automatic" and beyond the power of Congress to cut, such as interest on the national debt and veterans' benefits required by law.

This is the only "budget" which Congress can cut. But when Congressmen promise to "balance the budget" by cutting appropriations, they are usually talking about budget Number One, and their ability to effect drastic changes for the year immediately ahead is rather slim.

Budget Number Three is often called the "cash budget." It simply adds all those payments and receipts which budget Number One leaves out and eliminates the items which are simply transactions within the government, such as "interest" on the government bonds held by the trust funds—interest which never leaves the Treasury. This budget reveals rather precisely how much cash leaves the Treasury and how much comes in, and thus tells more than either of the others about the economic impact of the government's operations for the year in question. For fiscal 1955, our cash budget is expected to balance at about 70 billion dollars.

BECAUSE of the tricky operations of the trust funds, this cash budget can be in balance when the regular budget—budget Number One—is about two to three billion dollars in the red. Put another way, when the government achieves a "balanced budget," it is actually running a two to three billion-dollar surplus in the "cash" sense—at least until the time comes when social security outgo begins to exceed income.

Unfortunately, the confusion doesn't stop with the multiplicity of budgets. Over the years there has also grown up a profusion of "gimmicks" in the way the government pays for things. They often make the figures in the budget document misleading as far as the *economic impact* of the government's operations are concerned.

This confusion does not result from any conscious effort by anybody to deceive the public. Indeed, the budget system as it has been laboriously worked out over the years is believed by the ex-

perts in Washington to be the most accurate expression possible of the *financial* condition and operations of the government. But financial and economic are not identical terms.

TAKE, for example, what happened last fiscal year in the farm price support operation. Midway through the fiscal year, in January 1955, net expenses for price supports were estimated at 2.1 billion dollars. The final figure wound up at 3.3 billion dollars —resulting in an increase in the budget "deficit" of a whopping 1.2 billion dollars. And yet the total produce actually acquired by the government or offered for price support loans was very little different from the amount estimated in January. What happened? The answer involves a complicated method of financing these crops in part through private bank funds. Because of a change in the monetary situation last spring, banks which had bought some 800 million dollars of special crop "certificates" dumped them back on the government. The government knew all along it would have to repay those certificates, but it didn't count on doing so in fiscal 1955, the year just ended. This 800 million dollars had to be added to the "deficit," even though there was no change in the level of payments to farmers under price supports.

Another good example arises in the field of public housing. While the level of houses built remains constant, budget expenditures for this program can swing wildly from a large outpayment to a "net receipt," depending entirely on the timing of bond flotations by local housing authorities in the public markets. The true economic demands on resources—and the flow of cash into the economy —are the same whether the money comes from the Treasury or from the public market on a bond guaranteed by the Treasury. But from the budget it would appear that there is a great difference from year to year.

Actually, the experts have for a long time insisted that no one should attempt to discover the total economic impact of government operations by merely reading the budget figures.

IF ALL this seems a bit discouraging, there is perhaps one useful lesson to be learned from it: The kind of talk about the "budget" that appears almost daily in the press, usually referring to the old issue of whether the budget will be "balanced," should be taken with a grain of salt. What is more, it might be a good idea if this symbol stopped having quite the meaning in our political life that it has come to have. ■

Does National Income Measure Prosperity?

Not quite, but it does enable us to answer certain economic questions which were considered to be unanswerable a generation ago

by Sidney Weintraub

IT IS NOT uncommon to read that "prosperity is now at an all-time peak," or that "total production is setting a new record," or that "income is at levels previously unsurpassed," or that "expenditures have attained the highest sum in our history." Curiously, although these phrases look different and are meant to be interpreted differently, they are at bottom the same statement. They are not different coins, nor even different sides of the same coin, but the self-same legend on the same side of the same coin.

How does one go about measuring the state of a nation's economic health? We are not here interested in the profits of one firm, even a giant one, or of one industry, or the total of wage earnings alone, or the state of government finances. Nor are we interested in measuring the existing total of goods, or floor space of factories or magnitudes of natural resources; for these are only means of satisfying our more persistent ends. Our well-being constantly depends on the flow of goods from farm, mine and factory into the hands of the consumer, who stands somewhere at the end of the chain of events. To measure this vast conglomeration of goods and services pouring out of the gargantuan economic pipeline is the task of national income accounting. The dramatic newspaper headlines concerning today's prosperity and the promise of tomorrow's growth —and consisting of the individual phrases quoted above—are ex-

tracted from these estimates.

What are the problems encountered in measuring the output flow? Upon reflection, it is clear that the goods emerging in the economy are so numerous and so diverse that no crazy-quilt could ever cover their vastness and variety. The only possible way to add such diverse quantities is to find a common denominator. Such a denominator exists in the form of prices or market values. Multiplying the quantities produced by their market prices enables us to derive meaningful figures that can be summated into a grand total, such as the 385-billion-dollar gross national product which is being commonly referred to nowadays.

Even this does not lead us entirely out of the national income woods. For most goods appear several times during the process of production. Wheat, for example, first occurs in its natural form; next it becomes the stuff of flour; and then, with further processing, it emerges as the staff of life of yore—or the enriched bread of today. To take another simple illustration, iron ore is first extracted; then it is forged into steel; next it is fabricated; then it comes to its final rest as a beam in our house or a body in our automobile. It is imperative, therefore, that each output is counted only once: the wheat, say, at only one stage rather than in all three.

The simplest way of evading duplication is to confine the tallying to the final stage, where the unfinished materials have disappeared. Thus, if the automobile is entered, we can omit the iron ore and the steel from independent listing, for the final product already includes the cost of these operations necessary for the full product fruition.

If we carefully observe these rules, the resulting total will be what the economist calls gross national product. This GNP, as he likes to abbreviate it, summarizes the annual flow of production measured at market prices. Surely, if this total is "at the highest level in history," there must be unsurpassed prosperity! The two ideas come down to the same essential point.

Let us examine this idea a little more closely. Goods are produced in a market economy because buyers are expected. And the buyers are either (1) consumers purchasing the daily things which, although they may not realize it, are often yesterday's luxuries; or (2) business firms buying the newly built factories and equip-

Sidney Weintraub is Professor of Economics at the Wharton School of Finance and Commerce, University of Pennsylvania. He is author of the book, *Income and Employment Analysis.*

ment; or (3) government, with its demands for armaments, roads, schools, etc., as well as for the services of its frequently maligned but seldom envied bureaucrats. Even the unsold portion of current production—inventories—may be regarded as bought; for a firm's refusal to sell at knockdown prices signifies that the owner *is* giving up money in order to retain possession.

Consumers, business firms and government thus comprise the buyers in our economy. Foreign purchasers also siphon off some of our produce via exports, but exports are almost wholly replaced through imports, with the result that the net balance is usually trifling in the total picture.

Thus, as all output is sold, is it surprising that total expenditure on goods and services should also be at a record high when production is at peak levels? These statements are really the same. One without the other would be no more possible than television without the tube—or the commercial.

FINALLY, if sales proceeds are received from the market disposal of output—the expenditures once again—then receipts are at hand to be disbursed to those who participated in production. They go forth as wages, as interest and as rent; and the residual becomes "gross profits"—a blanket misnomer for depreciation allowances, corporate business taxes, withholdings to finance pension plans and growth programs, and dividend allocations.

When output is high, therefore, sales receipts are also high. Similarly, earnings on the selfsame output are also high. When emphasis is placed on the value of output, the term used has been denoted as gross national product. When the emphasis is on the earnings from the same output, the economist uses the term gross national income (GNI).

THUS, what starts out to be three separate, surging streams in the body economic are really the same river. The upward stream of output, with its record gush, is the same current that others recognize as the bursting expenditure dam, while still others see it as the ascending waves of earnings. Whatever images are created, financial analyst, editorial writer or political tyro are talking about the same thing: the gross national product, outlay or income.

These are the basic concepts by which the state of the economy is appraised. Let us now look at some GNP figures. Back in 1929, according to the Department of Commerce, we enjoyed a GNP of 104 billion dollars; preliminary

estimates for 1955 put our GNP at 385 billion dollars.

These figures attest to the enormous growth in the market value of output. Yet, surgical care is required in interpreting the data and drawing eloquent inferences from them. Certainly, we cannot conclude that this growth in the value of GNP represents wholly a production advance. Prices in 1929 were only about 64 per cent as high as in 1955. By adjusting our figures to 1955 prices, we find that GNP in 1929 was 164 billion dollars—instead of the 104 billion dollars mentioned earlier. Even so, the figures still bear witness to the enormity of our production growth.

Measuring the individual's share in this unprecedented growth in output requires further adjustment and refinement of the data. Population has grown substantially since 1929, from some 122 millions to the current count of 166 million. Making allowances for these population changes, our estimated per capita output rose from $1,344 in 1929 to $2,319 in 1955. Again, the tale of growth is indisputable. Still, in per capita terms and corrected for the price level uplift, the story is more steady and solid than phenomenal and spectacular.

These are the major corrections that must generally be made for comparisons between years in which prices and population, or both, have changed. Other difficulties ought, however, to be noted. If we are to talk about consumer well-being instead of aggregate output, the appropriate figures to use as a guide are those on personal consumption expenditures, not on GNP. For individuals are well-off depending on the goods and services produced and designed for their consumption, not on the factories erected or battleships and guided missiles bought by the government. And so, corrected per capita figures on personal consumption outlays ought to be entered for such discussions. Another point. If the average work-week has changed, say from forty-eight hours to forty hours, the statistics as they stand fail to include this prized facet of greater well-being.

FINALLY, it is always a source of pride and self-adulation to compare our per capita income today with that of previous generations, or with contemporaries in other countries. Without the most painstaking care such comparisons perpetrate the greatest myths of all. For our money income buys a 1955 basket of goods, with its big-screen television, its rotor vacuum, dial transmission motor car, the slightly older dial telephone, etc. Our great grand-

father would certainly disdain a television set without a television network to bring him entertainment, presumed or real, or a sleek new automobile with its "go power"—to be used on the roads of 1850 without the tender aid of nearby filling stations. Thus, when the variety and composition of available goods changes drastically, income measures often evidence greater prowess in arithmetical manipulation than in depicting with fine accuracy the exact change in well-being.

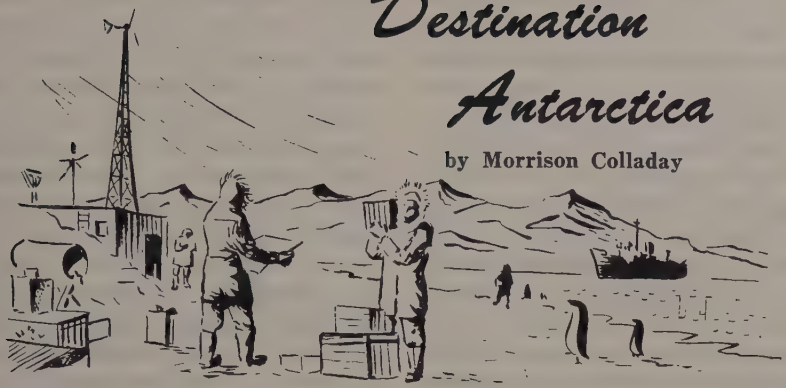
International or interregional comparisons of income are deceptive for similar reasons. Consider someone with an equal money income in New York City and Orlando, Florida. The bill for heavy winter clothing, heating, fatty foods, etc., will be higher in the northern clime. Furthermore, expenditure patterns are very much determined by conventional standards. Thus, maintaining a roughly equivalent living scale in different places within a country need hardly entail equivalent earning power, even if the price of goods and services were the same—which they are not.

Troubles are compounded when international comparisons of living standards are essayed. Goods available in one country are not at hand in another and, if they were, might not be wanted. Demand for subway or commuter tickets in the Himalayas is less urgent—and less crushing—than in our urban centers. And yet, such transport services are of the essence of an urban living scale. Envisaging the meat of one as the forbidden flesh of another, the wine and coke, the wheat and the rice, etc.—even if some separable baskets of goods could be isolated and regarded as equivalent—there still remains the formidable problem of reducing them to some commensurable price figure. Dilemmas abound, what with the differing currency systems and the lack of an unequivocal criterion for translating the money values of one into currency equivalents of the other.

All of which leads to the conclusion that in national income analysis simple answers to complex questions are truly myths. The corrective detours that must be taken demonstrate the unpalatable fact that life itself is complicated, and that "innocent" queries busy philosophic cloisters. Yet, it is only through national income measures that reasonably sensible and accurate answers are now available to questions that would have defied quantitative assessment and illumination just a short generation or two back. ■

Destination Antarctica

by Morrison Colladay



The search for uranium and other minerals, weather information and military bases has started a world race to the south polar region

THE RECENT announcement of plans for a new U. S. expedition to the south polar regions has aroused a great deal of speculation. Exactly what is Antarctica worth? We do know, for example, that this continent is a somewhat circular body of land measuring 6,205,000 square miles; that it has an area greater than the United States and Europe combined; that it is barren, uninhabited, largely covered with a mile-thick layer of ice; and that it has the world's severest climate, with temperatures as low as 80° F. below zero.

But it is not for nothing that many nations of the world, great and small, with the exception of the United States until late in 1955, have gone to a vast amount of trouble and expense to establish claims to parts or all of the continent. Three of them—Great Britain, Argentina and Chile—have come almost to the point of armed conflict more than once because of overlapping claims.

On the basis of discovery, the United States has had a more valid claim to territory than any of the other nations; yet, its official position, until last November, was to make no claims, recognize none made by other nations and to reserve for itself the right to go anywhere in the Antarctic.

Now this "hands off" but at the same time "open door" policy has been abandoned. Rear Admiral Richard E. Byrd has been given command of all Antarctic activities and has been directed

to establish permanent bases on the continent, placing the United States on the same footing as the other nations that intend to maintain permanent settlements there —Argentina, Australia, Chile and Great Britain.

An expeditionary task force, Operation Deep Freeze, composed of 1,800 men and nine ships has been organized to implement this policy. As its first job, the task force has already begun to prepare for bases to be used by the United States as a participant in the International Geophysical Year which will begin July 1, 1957 and continue through the close of 1958.

A number of other countries are planning to establish or reinforce their claims in the Antarctic as they prepare to participate in the IGY, a period of world-wide scientific observations by forty nations working in close cooperation. The coming IGY, the third since 1882, will incorporate plans made by an Antarctic Conference meeting in Paris last year. These call for all nations interested in Antarctica to set up bases there for the study of such subjects as oceanography, seismology, cosmic rays, meteorology, glaciology—in fact, all subjects pertaining to the earth, sea and atmosphere with particular emphasis on the phenomena that affect world weather conditions.

The United States will have six bases, including one at the South Pole. The Soviet Union will have three camps. Great Britain, Argentina, Chile, New Zealand, Norway, Australia, France and Belgium will have one each. These are in addition to the bases established by Britain, Argentina and Chile on the Palmer Peninsula (the tip of which is only six hundred miles away from South America) during the past few years of armed rivalry. Japan has been invited to establish a station on an adjoining island.

IT IS safe to assume that all these nations expect to gain valuable benefits from their stakes in the Antarctic. According to Rear Admiral George J. Dufek, who is in charge of the American task force, the United States will obtain weather intelligence perhaps more important than any previously obtained. The study of the upper atmosphere, states the Admiral, will alone be worth a billion dollars to America's rocket program.

The first reaction of many people when they hear of the surge of interest in Antarctic explorations is: "There must be uranium under all that ice."

Morrison Colladay, a frequent contributor to CHALLENGE, has long been interested in the possibilities of Antarctic development.

There probably is. It has been discovered in greater or lesser amounts on all other continents. Admiral Byrd stated in a recent interview that he had information that the Russians had been exploring the Antarctic by ship and plane looking for uranium.

Leaders of Australia's most important expedition to Antarctica, which is now building that country's first permanent base, expect that uranium will be found. Their belief is founded on reports of Sir Douglas Mawson, who led one Australian expedition from 1911 to 1913 and another from 1929 to 1931, and who found that parts of the Antarctic are similar geologically to south Australia where rich uranium deposits are now being mined.

Struggles for the Antarctic continent began long before uranium had any great value, however. Therefore, the motive behind the current southward search is obviously not the quest for nuclear fuel alone.

Evidence exists of the presence of a plethora of other minerals. For example, the rocks of the Antarctic Horst, one of two major mountain ranges, are formed mostly of sandstone, shale, limestone and *coal.*

The mention of coal on the Antarctic continent is at first startling, for coal is the product of decaying tropical or semitropical vegetation. Yet, according to Sir Edgeworth David, the British geologist and explorer, "The outstanding geological feature in the Ross Dependency of the Australian quadrant is the existence of a vast coal field probably at least one thousand miles in length and fifty to eighty or more miles in width. This is perhaps the largest unworked coal field in the world."

THIS and other coal field discoveries, plus the plant fossils uncovered by English and Swedish explorers, indicate that not once but several times in the past the Antarctic continent had a tropical or semitropical climate that may have resulted in huge deposits of many important resources.

An early British expedition found titanium and hornblende in the rocks between Cape Bernachi and Deport Island. An Australian group found beryl, tourmaline, garnet, mica, iron, copper and molybdenum.

L. M. Gould, who was second in command during Byrd's 1928 to 1930 expedition, reported that the geological structure of Antarctica was not unfavorable to oil, gas and coal. He noted that under the ice sheet there is a layer of sandstone not unlike certain Texas strata and that there existed rock structures resembling those

of the shield from which much of Canada's oil is derived.

Unfortunately, no matter what mineral riches are there, they are, at the present time, largely inaccessible because of the ice sheet that covers the continent. Of course, if the ice should melt, Antarctica might become the most valuable unsettled area on earth.

At first glance this prospect sounds absurd. But it is not, and here is why. We know that there have been at least four ice ages in the history of North America, the last of them between 20,000 and 25,000 years ago and that all the available evidence today indicates that the earth is growing warmer. The ice cap over the Antarctic continent is nine hundred feet lower than it was a century ago; the surrounding ice fields have retreated several miles during the past twenty years.

The same thing is happening in the Artic. "Greenland is getting greener and Iceland's ice is shrinking," writes Dr. Hans Ahlman of Stockholm University. "In central Norway, Lapland and Greenland the glaciers have been drawing back their long tongues of ice. Some have disappeared entirely. Icelandic glaciers are yielding up farmland which they have covered for six hundred years."

Many scientists believe that a rise of only one degree in the average temperature of the earth would cause both the Arctic and Antarctic caps to melt sufficiently to raise the level of the oceans twenty-five to fifty feet.

The 1947 Byrd expedition to Antarctica took more than 70,000 photographs and discovered that the retreat of the Antarctic ice cap was far more advanced than had previously been believed. Fliers with the expedition spotted a curious terrain in the middle of the continent where they saw bare conical mounds of earth rising five hundred feet from ice-free lakes of muddy green, blue and light green.

When the United States last summer sent a small expedition to the Antarctic, The New York Times reported that "one of the chief goals will be to determine whether or not low-lying coastal areas of the world face inundation in the near future as a result of polar thawing. Some scientists believe such a danger may arise within twenty-five to fifty years."

Given this prospect of a warmer Antarctica with consequently more accessible mineral riches, combined with military considerations and the advantages of vital weather information, the race to the Antarctic takes on significant meaning. The struggle to stake out claims leaves no one wondering what all the fuss among the penguins is about. ■

For the long run—

Facts, not Plans

by Solomon Fabricant

The National Bureau of Economic Research, a private organization, is one of the nation's most influential fact-gathering bodies

FORTY YEARS ago two men deeply interested in public affairs met before a New York State Factory Investigating Committee. They were to testify on the need for minimum wage legislation. One was an economist; the other an engineer-turned-statistician-turned-businessman. They presented strongly opposite views on the matter at issue.

A short time later they met again, this time before a Mayor's Unemployment Committee in New York City. Public Works as an alternative to soup kitchens was in question. Again the two men took up opposite positions.

On one matter, however, they soon discovered that they saw eye to eye. They both had a healthy respect for facts and sensed keenly the importance of tested knowledge. They agreed that knowledge was the only basis for sound decisions on controversial questions.

They began to see one another outside the public arena. At one of their meetings Malcolm Rorty, the businessman, said: "Here we are considering national income, a most important subject which deeply affects the lives of every man, woman and child in this country .... Despite a large fund of statistical data, there is no agreement on the purely arithmetical question of what part of the national income goes to each element of society. Would it not be a great step forward if we had an organization that devoted itself to fact finding on controversial economic subjects of great public interest?"

With this, N. I. Stone, the economist, agreed—provided, he said, that the organization could command public confidence so that its findings would be accepted as conclusive by all parties to any controversy. And this, he suggested, would be possible, if the organization were started by a group of well-known economists, representing every school of thought, who would assemble around them representatives of

all the important interests in the country.

The idea was nurtured by Rorty, who pressed it upon others. World War I diverted his energies to other tasks, but he returned to his mission when hostilities ceased. The National Bureau of Economic Research was born in December, 1919.

THE National Bureau was formed, according to its charter, "to encourage, in the broadest and most liberal manner, investigation, research, and discovery, and the application of knowledge to the well-being of mankind; and in particular to conduct, or assist in the making of, exact and impartial investigations in the field of economic, social and industrial science." In accord with Stone's suggestion, the Board of Directors was drawn from leading representatives of diverse interests and ideologies.

But a bold objective and a sound plan of organization were not enough. It was essential to develop the habit of working along strictly scientific lines, unswayed by prejudice or bias. Wesley Mitchell, the first director of research, played a big role in establishing the Bureau's tradition in this matter. In the words of Arthur F. Burns, who succeeded him in 1945, "Mitchell brought rich personal gifts to the venture . . . . More than that, he was a tireless scientific explorer, committed to social improvement through science and reason."

It was necessary, too, to start work in an important area which held out fruitful possibilities. Therefore, for the first project, the Bureau's Board of Directors chose a study of national income. Rorty and Stone had begun their initial discussions by examining the whole concept of national income. The investigation covered that question and its related problems: the size of national income, its distribution among industries and the various income groups, and the rate and character of its growth. When the Bureau's first report was published, the public had at its disposal, for the first time, a carefully considered set of reliable facts bearing on several questions that deeply affected the lives of every citizen.

According to its twenty-fifth annual report, the National Bureau hoped it would provide a place where "a program of critical research might actually be carried out, not just proclaimed aloud. Here empirical investigations might be undertaken, broader and more fundamental than

Solomon Fabricant is Director of Research of the National Bureau of Economic Research, and Professor of Economics at the Graduate School of Arts and Science, New York University.

any yet attempted by economists. Here complementary technical skills could be pooled, and the process of developing new knowledge made more efficient . . . . Here hypotheses could be checked by statistical data, statistical data stimulate new hypotheses, and hypotheses new data. Here tested findings could cumulate, reinforce one another, and open up new problems, as was routine in the established sciences. Most important of all, here was an experiment in democratic action, men of many shades of political opinion joining in the undramatic enterprise of reviewing the factual findings of a technical staff."

THIS was Mitchell's hope and expectation, aroused by the enterprise and public spirit of Rorty, Stone and the men who had joined with them. The scope and wide acceptance of the National Bureau's work of the past thirty-five years—135 bound volumes and as many papers on such basic economic questions as national income and its distribution, business cycles, employment and productivity, capital formation and economic growth, fiscal affairs, financial organization and processes—attest to the soundness of Mitchell's vision They confirm also the wisdom of the Bureau's original choice of organization and objectives which continue to be the ascertainment and presentation to the public of important economic facts and their interpretation in a scientific and impartial manner.

Visitors from abroad who watch the National Bureau in action sometimes express surprise that an independent group, with no fixed point of view, can survive. The continued existence of an impartial agency like the National Bureau is a tribute to the public spirit of the philanthropic foundations, business enterprises, labor unions, and individuals from different walks of life, whose financial contributions make its activities possible. For, as Mitchell had observed, those who assisted the launching of the Bureau, and those who have continued to support it, "could expect no personal advantage . . . . It (the Bureau) published its findings for the benefit of contributors and noncontributors alike. It expressed no moral judgments such as might give comfort to special groups, and it offered no practical advice on how to deal with current issues. Its function was solely to ascertain the ever-changing state of affairs as precisely as possible, and put its findings at the disposal of anyone and everyone who cared to use them. Only those who believed that 'the truth shall make you free' had reason to lend a hand."

The National Bureau influences economic policy indirectly through the knowledge that it organizes and places at the disposal of the public. Its research also paves the way for efforts by others. An example may be drawn from the field of economic statistics. Whenever the Bureau's staff members tackle a problem, they first work out relevant economic and statistical concepts; they explore and exploit various sources of information; they do not close their eyes to gaps and inconsistencies in these sources. Such critical use of information has stimulated improvements in research techniques and additions to the available fund of economic data. The Bureau's work on national income opened the way to the current method of preparing the official estimates of the Department of Commerce. The study by the National Bureau on money flows has just been utilized in a report by the Board of Governors of the Federal Reserve System.

THE WORK of the National Bureau makes its mark not through publications alone. One of its important functions has been to organize conferences of economists and statisticians from different parts of the country. A recent meeting of this sort was devoted to the measurement of unemployment; another, to business concentration and its bearing on price policy. And it took some twenty volumes to record the discussions of the Conference on Research in Income and Wealth, a group organized for the Bureau by Simon Kuznets in 1935.

In addition, members of the National Bureau's staff are called upon to consult with users and compilers of economic information and to participate in official committees. Every year, a few of the staff leave for positions outside the Bureau better equipped professionally than when they came to it. It is no accident that five members of the Bureau's staff were on committees organized last year by the Federal Reserve Board to review several important bodies of official economic statistics and to make recommendations for their improvement; or that Mitchell's pupil and successor as director of research at the National Bureau, Arthur F. Burns, was called to Washington in 1953 to serve as Chairman of the Council of Economic Advisors.

It is of crucial importance that in its reports the National Bureau expresses no moral judgments, and that it offers no practical advice on how to deal with current issues. By such restraint, objective analysis of economic problems is facilitated; the Board of Directors' task of impartially re-

viewing the findings of the staff, a difficult assignment under any circumstances, becomes feasible; and wide acceptance of the Bureau's findings is ensured.

But avoidance of policy recommendations does not mean that policy questions are not constantly in the minds of the Bureau's Board of Directors and the staff. Certainly, the selection of topics for research is guided by the importance of the basic issues to which the topics are related. Nor does its refusal to recommend specific policies mean that the Bureau refrains from analyzing economic policies. An early publication of the National Bureau was devoted to a study of remedies for unemployment. Currently, the Bureau has in press a volume of papers on policies that have been advocated to combat depressions. Looking to the future, the Bureau is exploring the possibilities of research on the economic impact of the public and private pension systems that are mushrooming over the country.

Has the National Bureau been successful in achieving its aims? Mitchell answered this question at the close of the first twenty-five years of the Bureau's existence by saying that the continuation and increase of the types and amount of support accorded the Bureau from a wide variety of sources indicated that the initial doubts about its practicability had been resolved, and that the Bureau was therefore making its contribution to "social improvement through science and reason."

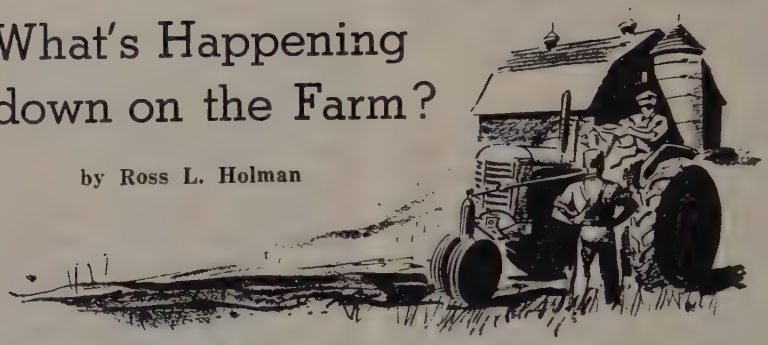
Now, ten more years have been added to the Bureau's record of service. Such continued wide support of the activities of an impartial agency for economic research surely indicates, if only in a small way, that the trust of the American people in democratic action remains the basis on which great hopes for continued economic and moral progress may be based. ■

Fabric-identification: Guesswork

Although women are more assured and self-confident when shopping for fabrics, in a recent consumer survey they were wrong more often than men in identifying and describing specific fabrics. Twelve apparel and upholstery fabrics were selected and consumers were asked to describe them in any way they could. Almost half the men (47 per cent) admitted they did not know; only one-quarter of the women admitted this. While 39 per cent of the women were able to identify the fabrics correctly, only 27.5 per cent of the men could. But women were wrong more often than men, because the men figured largely in the "don't know" category.

What's Happening down on the Farm?

by Ross L. Holman



An expert looks at the "farm problem" with a sympathetic eye and sees the small farmer as upholding a way of life

THERE IS no doubt about the fact that the nation's farmers are taking a terrible licking. While nonfarm incomes have reached an all-time high, total farm income has dropped 25 per cent in four years. Prices of things the farmer has to buy have dropped only 4 per cent, while his share of the consumer's dollar is down from a peak of fifty-three cents to forty-two cents. Last year the farmer's percentage of the total national income was the smallest on record.

In some corn and wheat areas, up to 40 per cent of the small farms are selling out to larger farmers. The number of holdings with one thousand or more acres has increased 80 per cent in thirty-five years. One-sixth of our farms have disappeared in the past twenty-five years.

Nobody wants to see these developments turn into an irrevocable trend. Both Democrats and Republicans appear ready to do anything to keep the family farmer from going the way of the American buffalo—provided one party can get the credit for doing the good deed and can blame the other for not doing it.

In their efforts to keep the farmer happy by supporting prices at a profitable level, Democratic and Republican Administrations have accumulated more than seven billion dollars worth of surplus crops. Nevertheless, top hogs are now selling at less than fourteen cents per pound,

about half the price of a year ago. One lady operating a Midwestern dairy says she sold 65,717 more pounds of milk in 1954 than the year before, but she got 204 dollars less. Another dairy farmer says she received two thousand dollars less in 1954 for more milk than she shipped in 1953. But the consumer paid the same price. Despite already depressed commodity prices, a further drop is indicated for 1956.

The favorite whipping boy of many armchair appraisers of this situation is the so-called "inefficient farmer." They point out that the top 9 per cent of our farmers produce 50 per cent of the total agricultural output. Their inference that small landowners will have to give way to large operators is like telling the small rural merchants that they will have to give way completely to such national chains as Sears Roebuck and A & P. You can draw the same parallel in most any line of business. Why pick on the farmer? There is room for both large and small in agriculture as well as in commerce and industry.

While in agriculture, as in every other activity, some farmers are more efficient than others, we must admit, in the face of a seven-billion-dollar food surplus, that the farmers as a whole *are* very efficient producers. They are now achieving 40 per cent more production with a million fewer farmers than fifteen years ago. The are getting 91 per cent more output per man-hour. They are producing one hundred bushels of corn in thirty-four man-hours compared with 127 man-hours in 1930. Similar records have been achieved with other crops. And, mind you, this tremendous increase has been accumulated largely by our family farm system. Less than 1 per cent of total farms are as yet operated by hired managers of giant, corporate farms. Most of the larger farms of the future will still be operated by the family farmer.

Actually, bigness is not a true measure of success in farming. Some of the most spectacular successes I have known have been on small acreages. There will always be certain lines of agriculture peculiarly adaptable to small area production. Good examples are to be found in truck farming, poultry production and dairying, where most of the feed is purchased rather than raised. In these lines and others, the gross income per acre for smaller farms is far above average.

Of course, multithousand-acre farming does lend itself to many

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Ross L. Holman, former farm journal editor, knows and sympathizes with the problems of the small-farm family in the U. S.

cost-cutting factors. But the family farmer enjoys peculiar competitive advantages of his own. He handles practically all of his operations within his own family and can depend more confidently on this kind of help than corporate farm management can on a regiment of hired labor. While the big acreage producer can operate in some ways at lower costs, he cannot match the spirit of ownership and teamwork of the family farm, particularly when times get hard.

As distressing as the decline in agricultural income has been, the family farmer is a long way from extinction. The American farm owner today is far more solvent than he was after the first World War. Farm mortgage indebtedness at 8.2 billion dollars, while high, is less than double the 1945 figure. This compares with the total mortgage debt of the nation's homeowners, which is four and one-half times what it was a decade ago.

Although the fates have dealt a cruel blow to *total* farm income, many authorities point out that *individually* the farmer is better off than the figures might indicate. Under-Secretary of Agriculture Morse says that although total farm income dropped 25 per cent between 1947 and 1955, the lower income is shared by fewer farmers. "So," he states, "our *farm income per person* dropped only 5 per cent." If we include the farmer's nonfarm income, there was an actual *increase* of 16 per cent.

Even with this brighter view of the farm picture, however, a continuing decline of agricultural prices, or even a failure of prices to rise above present levels, may destroy the incentive of many small farmers to remain on the land. So far, the most important and controversial step taken to halt the downward trend of prices is the government's support program. Most of the political argument seems to center around the question of whether the support props should be rigid at 90 per cent of parity, or flexible at varying levels up to 90 per cent.

Now, regardless of who is right about rigid supports vs. flexible ones, I have never understood why a seven-billion-dollar food stock, resulting from price supports, should alarm us. In order to meet possible future emergencies the government is stockpiling guns, tanks, planes and atom bombs. If a war, famine or other misfortune should occur, a healthy stockpile of food and fiber in government hands might be a godsend.

And, no one need worry about price supports pampering the "in-

efficient farmer." Experience shows that the really inefficient producer usually doesn't stay around very long, regardless of what prices he gets. It is the worthy producer, big or little, that needs help in the price squeeze. Farmers insist that government supports in their present form are no more than the equivalent of protective tariffs for manufactured products.

If the family farm disappears, we shall lose the very bulwark on which our civilization has been built. Small farming is not only a way to make a living, but a way of life. It has numerous values besides money. For one, it provides the finest training on earth for boys and girls.

To my way of thinking, it would be far easier to expand our markets than to uproot millions of farmers. Our population is expanding at the rate of three million each year. At this rate of increase, economists predict that we shall have to increase production by 15 per cent in the next decade to provide the same per capita amounts of food now available.

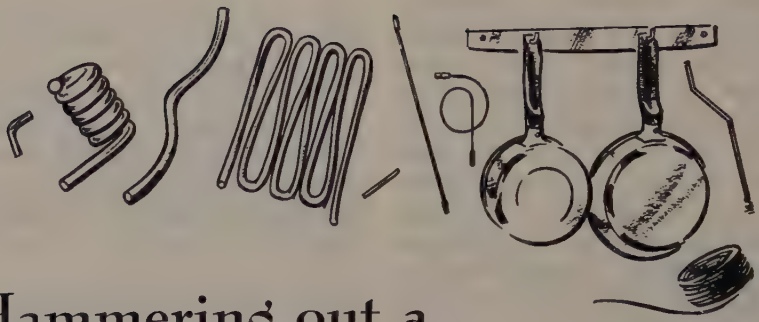
One economist estimates that a per capita increase in meat consumption of five dollars per year in our own country would erase the feed surpluses of corn, oats and other crops. The government might look into these areas more fully. It is already contemplating a movement of some surplus food into school lunches.

In addition, two-thirds of the world's population is still underfed and underclothed. That, alone, is a colossal need, and some of it might be translated into added markets for American farmers.

FAMILY farmers, however, are not waiting idly for such developments. They are rapidly expanding their cooperative buying and market facilities to match the bargaining power of large corporate farms. With cooperatives they are also doing some of their own processing and working out short cuts to the consumer for a bigger share of his dollar.

Furthermore, thousands of small farmers are finding part-time work in nearby factories and industries. In fact, 30 per cent of America's farms are already part-time or residential farms. If this trend continues, it should relieve much of the distress in marginal land situations.

Finally, the family farmer has been through many crises worse than this, and he has lived them down. Today, he is far more solvent than he was in previous ordeals. He is getting far more government help than before, and he has much better facilities with which to help himself. Therefore, I have no fear about his future. ■



Hammering out a Price in Copper

by George H. Cleaver

Once again the age-old controversy: Should it be high prices for maximum profit or lower prices to spur demand?

THE WORLD copper industry enjoyed its most profitable year in 1955, with sales reaching 2.5 billion dollars—a new high. But in spite of this bright picture, the industry has been split by a fierce controversy over price policies. Underlying this conflict are some basic economic questions relating to the way prices are established in a market economy. For example, some copper suppliers take the position that maximum prices should be charged on all occasions; others, with a longer-range point of view, believe that prices should be kept within some "reasonable" relation to production costs.

Let us review the background of this pricing controversy. Back in 1954, refined copper was selling at thirty cents per pound. Industry experts believed that this was a rather high price and expected a drop to about twenty-four cents per pound. Officials of one of the larger copper mining and smelting companies stated publicly that twenty-seven cents would be a "fair" price, while other industry executives claimed that even a twenty cent price would enable African producers and at least one large American firm to make a good profit. But in the last quarter of 1954, an unusually heavy demand both abroad and in the United States, coupled with production cutbacks because of strikes and some voluntary output restrictions, precipitated a severe world copper shortage.

As a result, the price of copper

rose substantially, and late in the summer of 1955 major sellers of copper in the United States were charging forty-three cents per pound. Others, mostly brokers and dealers who enter the copper market only intermittently, were receiving as high as fifty-three cents per pound from customers unable to obtain a sufficient supply from their usual sources. In Europe the price has varied even more widely, ranging from thirty-five cents to about fifty-three cents per pound.

These price spreads reflect, for the most part, the different price policies that are being pursued by copper supplying firms. The companies which prefer to let the price go the limit of what the market will bear state that the law of supply and demand should at all times determine the price. They hold that the intensity of demand—the extent to which a purchaser is willing to pay a higher price for a particular product —is not equal among buyers and that those buyers with the more intense demand get first call. As the price rises, those with a less intense demand drop out of the market, while the others, with the greater need, continue to buy. According to this view, the differences in demand intensity require a free interplay of the forces of supply and demand.

Examples of copper producers and suppliers who seek the highest possible prices would include the following:

1. Those able to turn over their capital quickly and who can take advantage of high prices in one product one year and transfer resultant gains to other products in other years.

2. Firms selling not only copper but also a competing product. Such an organization could benefit by a switch in demand to the other product. At the very least, the switch would partly offset the decline in demand for copper.

3. Mining firms that are close to exhausting their copper ore deposits.

4. Mining firms whose costs are unusually high.

5. Firms for which copper sales are relatively unimportant.

6. Firms that need to make up for an unprofitable year by a highly profitable one.

On the other hand, most of the larger producers have attempted to prevent "excessive" price hikes that might reduce long-term demand for copper and thereby encourage a shift to aluminum, plastics or other substitute materials. As a result, their prices have lagged considerably behind those

George H. Cleaver, formerly an economist with the Board of Governors of the Federal Reserve System, is currently engaged as a writer on economic topics for a New York publishing company.

of other firms which are more interested in realizing peak short-term profits.

By and large, there are two types of suppliers who tend to keep down prices. First, there are the larger copper mining and smelting companies. These have important investments in ore deposits and in mining and smelting equipment, which enable them to produce at costs well under present prices. Consequently, they could still make a profit at lower prices while, at the same time, encouraging long-term demand for copper. Similarly, the large custom smelters favor lower prices for long-run advantages because they have heavy investments in smelting equipment with which they do considerable toll business (refining the ore of various mining firms) for others.

Sometimes, however, it has been impossible to keep down prices. What happened early last year in Chile is a case in point. American consumers depend on copper mined in Chile for a substantial part of their requirements. As it happens, almost all of the Chilean copper is produced by two American firms: Kennecott Copper Corp. and Anaconda Copper Mining Co. When these producers, who also mine a great deal of copper in the United States, refused to charge what the market would bear, the Chilean government took over a large part of their output and sold it to the highest bidders—in most cases, dealers and brokers who normally did little or no business in copper. American and European fabricators, in desperate straits because of the disappearance of copper from normal supply channels, eagerly snapped up whatever was available at the higher prices.

Finally, in order to obtain copper for their customers as well as for their own use, Kennecott and Anaconda were forced to compromise. They made an arrangement with Chile whereby they could sell their own copper as long as they raised prices to about ten cents under the peak price.

MOST of the companies that maintain prices under the top have met the heavy demand by allocating their output to customers according to the proportions in which they brought prior to the price crisis. But even if customers were encouraged to bid up the price, the over-all supply picture would not be changed substantially. In fact, no matter how high prices might go, the world's total supply of copper could not be immediately affected since it takes years to get new mines into production.

Probably the only supply effect of higher prices during 1955 was a slight increase in the recovery

of copper scrap. It is doubtful whether American fabricators would have got more Chilean copper at any price since European buyers were always prepared to outbid them.

Actually, it is more likely that *lower* prices, say thirty-three to thirty-six cents instead of today's price of forty-three to fifty-three cents, would lead to more copper being mined and consumed in future years. For copper producers have become conscious of the fact that a consumer's reaction to today's prices will affect his purchasing tomorrow. The price of copper is often the major cost of production for a fabricator and a significant part of the price to the final consumer. Thus, while short-term demand is fairly inelastic—that is, the customer will take approximately the same amount of copper over a short period even if the price is raised considerably—the importance of copper in total costs gives incentive to the long-term search for substitutes.

Illustrating this point, Western Electric stated recently that the high price of copper had led the organization to redouble its efforts to switch over from copper to aluminum. And Western Electric spends close to 90 million dollars a year for copper!

In many cases equipment costs and technological changes make the initial switch to a substitute difficult and expensive. Consequently, once a shift is made away from copper, it might be too costly and complicated to change back even if prices fell markedly. Notwithstanding the possibility that maximum prices could be significantly harmful to the copper industry in the long run, we cannot say that the controversy over price policies is one between sinning dealers and saintly mining companies. In fact, most discussions in the business press have favored the group advocating the highest prices that the market will bear. At the same time, they have implied that those who attempt to hold down prices are "guilty of price control" and "oppose a free market."

On the other hand, some industry spokesmen state that there is a question of fairness involved and that justice is on the side of those who have attempted to keep prices from rising. Since rising prices may lead to difficulty for certain fabricators, they say, the idea that a supplier has some obligation to his customers is not without merit. Actually, both dealers and miners have been doing what most firms do: they have been following a course of action —largely determined by the long- or short-term goals of the individual organization—designed to secure the greatest profits. ■

Raymond P. Sloan

Director, Institute of Hospital Administrators; and President, The Modern Hospital Publishing Co., Inc.

Hospitals Are a Special Kind of Business

Q MR. SLOAN, *hospital bills represent to many people some of the most expensive debts that can be incurred. How does it happen that hospital charges seem high, and still hospitals are operating at a deficit?*

A You have to remember that a hospital offers a service which no one finds attractive—before illness, that is. There is no pleasure and no fun in having to go to a hospital and having to pay the bill. So a healthy person thinking about the so-called high cost of hospitalization today is inclined to overlook the fact that the costs of other services have also increased.

Q *Is there an improvement factor to be considered—as, for example, with automobiles, which cost more today but are much better than they used to be?*

A Of course, there has been considerable improvement in hospital service—better care, medical advances, superior equipment and so forth. The requisite period of hospitalization has been considerably shortened. Just ten years ago, the average stay of a patient was at least ten to fourteen days. Now a patient may be out in four or five days. Therefore, although the per diem charges may be high, in terms of total expense a patient is spending *less* money.

Q *It would seem, then, that even though people are getting their money's worth, hospitals still are not charging enough.*

A As you probably know, some of the costs charged to private patients are above the actual cost to the hospital. If this were not done, the budgetary deficits of hospitals would be even larger than they are today. The reason why hospitals will charge more than their actual costs is that they must make up for what is to be spent for the care of indigent patients—those who cannot pay their way. Of course, a complete recovery of such expenditures is not always possible.

Q *Have the various group insurance plans helped to alleviate the financial dilemma of hospitals?*

A The group insurance plans, voluntary or otherwise, which today encompass about 102 million people have probably done more than anything else to alleviate the financial problem of hospitals. Hospitals would be in a far worse financial position today if it were not for this tremendous development in insurance.

Q *We generally think of such hospitalization insurance plans as helping people who must enter a hospital. How do they help the hospitals to the extent that you have indicated?*

A Such plans have made it relatively easy to prepare people for situations of disability which fall upon all of us at one time or another. As you probably know, one out of every eight of us in this country enters a hospital during a year. Before the widespread adoption of the insurance plans, individuals just were not prepared to meet the emergency. And strangely enough, once the recovery is made, it's just human nature to forget about the hospital bill. Now, of course, Blue Cross and voluntary hospital insurance plans give the individual an added feeling of security and at the same time see to it that the hospital gets paid.

Q *Do these hospitalization plans pay the hospitals in adequate amounts to cover costs?*

A It has been difficult to bring these insurance plans and the hospitals together. The marriage has been more successful in some states than in others, but there is a growing tendency to coordinate and bring the two together.

Q *Mr. Sloan, do we have enough hospitals? Are there situations*

of such overcrowding that a patient may not be able to get adequate care?

A The hospital picture in this country is very, very spotty. Some sections of the nation—notably the rural areas—have an inadequate number of hospitals. Others are overhospitalized. In many communities hospitals have sprung up here and there without any thought to over-all needs, and they have almost been vying with one another for the business, if you'll pardon my putting it that way. More and more, though, communities are studying their hospital needs. Which sections have too many? Which have too few? Such surveys help to create situations of balance.

More hospitals will be needed in the long run

Q *With our rapid increases in population the inevitable answer is, I suppose, that we need a stepped-up pace in new construction?*

A Certainly, in the long run we shall need more hospitals. There is a growing feeling, however, that right now we do not need as many new hospitals as we do a more critical appraisal of the people we admit into our existing hospitals. Many people are admitted into hospitals as bed patients who could be taken care of at home. Home care will cost three or four dollars per day as against twenty-two or twenty-three dollars in an institution. Such arrangements naturally make more hospital beds available for the more serious cases.

Q *Are individual hospitals generally responsive to attempts to coordinate all hospital activities in a community?*

A Such cooperation comes slowly, because members of hospital boards sometimes have a paternalistic attitude toward their institution and don't like to feel that they are coming under someone else's control. So, it takes time.

Q *How personal is this identification of board members with their institutions?*

A Often it is very personal, and these attitudes are rooted in the history of hospitals. It all started with people of wealth and distinction feeling sorry for the sick poor, offering them lodging and

such medical and nursing care as they could bestow. The next step was that of people of wealth deciding that they wanted to do something for the community—give it a hospital, for example. Such a decision might be based more on what the donor wanted than on what the community needed.

Q *And this paternalism has hung on through the years?*

A It has hung on. One of the weaknesses in the whole system of voluntary board service is that members have not yet reached the point of seeing the over-all needs. They view hospital and medical service through their own institutions. And though they render very valuable service without compensation, they are not inclined as yet to envision their own institution just as one unit in a community of planned units. That is why there is such a thing as competition in hospital service.

Q *What type of people become hospital board members?*

A Board membership has been identified through the years with the privileged—people of means, of position and influence in the community. Fortunately, times are changing, and while hospitals still recognize the advantage of having distinguished names on their letterheads, they see that a hospital, in order to be truly a community hospital, must draw upon a cross-section of people who will represent the community on the hospital board.

Q *Exactly what is the function of a trustee? What does a hospital board do?*

A Like any big business, a hospital must have a board of directors which establishes general policies and goals and watches the over-all effects of such policies. But the board does not become involved in the details of administration, which are left to a professional hospital administrator. The growth of this relatively new profession—running a hospital—will contribute a great deal to a more efficient conduct of hospital affairs. To recruit such professional administrators is one of the biggest jobs board members have today.

Q *How does a hospital come into being? Who builds hospitals?*

A There are three kinds of hospitals: the government hospital, which

is sponsored and operated by federal, state, county or city authority; the voluntary hospital—conducted on a nonprofit basis—sponsored by religious or fraternal groups, a philanthropic organization or by a private individual of means; and the proprietary hospital, which is run for profit and is often referred to as a doctor's hospital because its owners and sponsors are preponderantly medical men who go into the hospital business.

Q *How do these three types differ in their source of funds?*

A Government hospitals, are of course, tax-supported. The proprietary hospitals must earn money, so they will charge their private patients at a profit-making rate. The voluntary hospitals are different. Their revenues come from patients who pay their bills, from public donations and gifts of interested friends. Its endowments come from legacies.

Q *What about patients who cannot pay?*

A Part of such costs is borne by those who can pay. Part is written off in the deficits of voluntary hospitals. Some of it is met by the city or local government which consigns the public charge to a voluntary hospital. Unfortunately, such compensation has been below the actual cost of caring for indigent patients. And this has been a matter of controversy between the boards of voluntary hospitals and local government. One New York City hospital is getting fourteen dollars per day from the city for care which is costing $21.75. Another hospital reports that last year its deficit was increased by 76,000 dollars because of inadequate compensation for charity cases.

Hospitals are big business, and demand good business procedures

Q *It would seem, then, that strictly business considerations are not enough for many of our hospitals which have nonbusiness considerations to cope with.*

A Absolutely correct. Hospitals are big business, and good business procedures are necessary. But considerations of good patient care come first. The board of trustees of a hospital cannot be as definite in its business decisions as the board of directors of a big corporation.

Hospital trustees may feel, for example, that the institution cannot afford that new operating room equipment. But the hospital cannot afford *not* to buy it. There is a question of life or death involved in the decision.

Q *How might you sum up the various ways by which our hospitals can end up in the black at the end of a fiscal year?*

A I think there are many ways by which hospitals will in the future adhere more closely to black figures. I am not saying that this can be done or should be done completely, because how much in the red or black a hospital is depends entirely upon the amount of free work it does. But I think hospitals are going to be run more efficiently because of better business administration. I think that more adequate support is going to come, and is coming, from city, county and state authorities for the care of indigent patients that our voluntary hospitals must serve. I also think that the increasing enrollments in insurance plans is going to help. Such developments will probably tend to overcome the lack of large gifts.

Q *What about public support through the hospital fund drives?*

A I think your fund drive is definitely the answer, not from the standpoint of making up deficits, because no one likes to give money to make up a deficit, but from the standpoint of new construction, improvements and additions. As the public comes to recognize the need to keep up hospital facilities, there is every reason to believe that public support will come. The large gifts are no longer there. But now you get a larger number of smaller gifts, which in a way is good because many more people feel their obligation to support their hospitals.

Q *This brings the hospital truly in the service of the community?*

A That's right. The base of support for the hospital passes from the privileged few to the entire community. The widening base of this support is a healthy thing, because as more people have a share in their hospital service, they will have that much more pride and interest in the affairs of their hospitals.

Q *Thank you, Mr. Sloan.* ■

you may want to know...

AIR CONDITIONING is income-tax deductible for people with heart ailments and allergies. The cost of an air-conditioning unit and its upkeep may be entered as a medical expense, the Internal Revenue Service ruled, provided the taxpayer can prove that he is cooling for other than psychological reasons.

Added Homogeneity

YOU CAN successfully store homogenized milk and cream in your freezer, the Department of Agriculture says. Use wax cartons instead of glass bottles, but don't try to keep for very long periods because the quality will deteriorate. Non-homogenized milk separates on freezing.

Over-withheld Taxes Deductible

IF YOU changed jobs in 1954, or held more than one job, you may be entitled to credit for over-withholding of Social Security taxes. Add up the total amount that has been withheld for Social Security. If it comes to more than $84 (2 per cent of $4,200), add the extra amount to the "Income Tax Withheld" column of your return. It will decrease the amount of tax you still owe, or it might increase the amount of your refund.

Fireproof Fabrics

IT IS easy and wise to fireproof such inflammable fabrics as ironingboard covers and drapes or rugs near fireplaces. Dip the cloth into a solution made by dissolving 7 ounces of borax, 4 ounces of boric acid and 2 quarts of hot water.

Tired of Being Tired?

IF YOU'RE tired of being a tired housewife, don't walk upstairs unless you must; don't walk when you can stand; don't stand

when you can sit. Thus spoke Wayne University's Home Economics Department. Adjust your kitchen shelves, these experts say, so that articles used daily can be reached without any straining or bending. Use a tray cart in every way possible; even wheel cleaning supplies from room to room. Do all ironing, dishwashing and meal preparation seated in a back-supported chair.

Painting Light into Closets

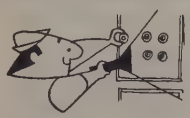
PAINT dark closets with white, glossy enamel to reflect what little light enters. The glossy surface prevents paint from rubbing off.

Suitcase-packing Mama

ALTHOUGH men do most of the traveling, women do most of the packing, says the American Express Company. To help women do the job easily, the travel concern published a leaflet entitled "The Right Way to Pack a Man's Suitcase." It is available free from the company.

Ringless Doorbells

IF YOUR doorbell stops working, apparently without any cause, chances are the dry-cell battery which powers it has run down. The bell box and battery are usually located together in a hallway or kitchen. The batteries are 1½ volt, two-post cells available at any hardware store.



Safety First Plus

SAFETY in the home workshop should begin while the workroom is in the planning stage. Example: separate the shop electrical circuit from that of the house, and be sure it is large enough to carry the volt-load of machine operation. Best bet is to use two circuits in the workshop —one for lights and one for machines—so that, should a machine be short-circuited, the shop lights remain on.

Check Facts

CHECKS are perfectly acceptable and valid if they are written in pencil, although it is much safer to use pen and ink. Pencil writing can be erased with little difficulty. Nor is there anything wrong with a check carrying a Sunday date. Sunday is as legitimate a day for writing and dating checks as any other day of the week. ■

Why Businesses Fail

Inadequate planning, ignorance of markets and increased competition are some of the factors responsible for small-business failures

by Sidney C. Sufrin and Alfred W. Swinyard

The term "business failures" has an ominous ring to the man planning to start a business of his own. The tone of finality is very discouraging. Even prosperous economic conditions cannot guarantee that a business, new or old, will make out, since business failures occur in good times as well as in bad. This being the case, why and under what conditions do firms fail and how can the number of these failures be reduced?

First, let us examine the extent of business shutdowns. According to Dun & Bradstreet's Statistical Review, probably the standard source of statistics regarding business failures, in 1950 there were 9,162 firms which called it quits; in 1951 and 1952 sizable declines in the number of failures were noted; but in 1953, the number rose again, to nearly 8,900; and in 1954, a good year for employment and personal income, failures jumped to more than 11,000. Thus, in 1953, when the economy slowed down to a more moderate pace, there were fewer business failures than in 1954, when business was again picking up.

A regional study indicates that there is a tendency for business failures to increase in the more energetic, lively business areas and to decline in the less active sections of the country. For example, business failures on the Pacific Coast increased by about 27 per cent from 1950 to 1954; while in New England during the same period they declined by about 16 per cent. A major reason for this difference is that the rate of increase in the number of *new* firms from 1951 to 1954 was about 35 per cent in New England compared to more than 60 per cent in the Pacific Coast area.

This leads to the generalization

that where business is brisk and profits are high, new firms will enter the markets, while old firms will expand their activities. Thus, competition becomes greater and, as is usual, the race is to the swift. The less able of the established firms or the less competent newer firms fall by the wayside, in spite of the over-all business prosperity.

What do all these statistics mean? Do they advise a man or a group of men not to enter a new business, either in depression or in prosperity? Do they hint that America has a "mature" economy and that the market has no room for new entrepreneurial skills or new capital? Do they indicate that only certain segments of business are profitable, while others are "full up"? In truth, they indicate none of these.

The statistics tell us, insofar as statistics can tell one anything, that when there is general prosperity, it does not fall like the gentle rain from heaven on everybody's shoulders with complete impartiality. Some business shoulders actually may remain dry, while others get soaking wet. The statistics further warn that one should be careful about investing time, money, effort and business reputation before starting a new business. When the times are favorable for one person to go into business for himself, they are also favorable for others who may want to do the same thing. More entries into the market mean more competition, and more competition means that those with fewer resources, less business acumen and fewer industrial connections are not going to do as well as those who are better situated.

An example will indicate what is meant. An acquaintance of ours, who retired several years ago from a family business, became excited about manufacturing a new product, although his whole experience had been in the field of real estate and retailing. He went to the bank and arranged for a line of credit, arranged with suppliers for providing the materials, arranged with the fabricator to do certain manufacturing jobs, and then felt that he was in business. But he had completely neglected the consideration of just how and where he was going to sell his goods. In other words, marketing, merchandising and advertising problems were overlooked. Consequently, he ended up as another statistic in Dun's Statistical Review as a failure in manufacturing with the loss of a quarter of a million dollars.

Sidney C. Sufrin is Director of the Maxwell Research Center, Syracuse University and Alfred W. Swinyard is Director of the Business Research Center there.

If this man who had a successful twenty-five year career in one phase of business was so blind when he undertook another type of commercial activity, think of the possible pitfalls in the way of the small businessman, bookkeeper, or young clerk, who has just fallen heir to $10,000, going into a new business, be it a small restaurant and bar, or a company manufacturing a household utensil. Ignorance of the market and ignorance of business practice are hindrances which few but the most lucky can overcome when going into a competitive market.

EXPERTNESS can be bought, but the broad, general knowledge and courage required for running a business—especially a small operation—must reside in the owner. A chap we know in Ohio owns a small tin shop. A couple of years ago he wanted to bid on a metal receptacle which the Air Force was buying. Being a man of acumen and certain humility, he hired himself out at $2.25 an hour to one of the large companies in Akron making this product. For four or five weeks he worked on the line learning just how the job was done. When it was all over, he decided that this product was not something that he wanted to bid on.

There is another consideration which is of some importance for business success. Those of us who make it a profession to examine business fluctuations feel that we know at least a little bit about the business cycles of the last fifty years. When one examines these cycles and compares them, one is struck by the fact that the characteristics of each fluctuation tend to be at least a little different, and often very different, from those of other fluctuations. Within these larger cycles, there are also substantial fluctuations for particular segments of the economy. Each individual industry, therefore, will in the future, as in the past, undergo ups and downs. By the same token, the number of business failures will vary from one industry to another.

Dun's Statistical Review breaks down business failures according to five major segments of industry and trade: mining and manufacturing, wholesale trade, retail trade, construction and commercial service. Failures in mining and manufacturing declined from 22.6 per cent, of all failures reported in 1950, to 20.6 per cent in 1954. Wholesale trade accounted for approximately 10 per cent of all business failures in 1954, a 2 per cent increase over 1950. Construction failures also were fairly constant, running at 11 per cent of the total for the four-year interval. And com-

mercial service failures, too, have been running fairly steadily at approximately 8 per cent.

The above ratios provide an indication of the *number* of failures. To otain some idea of the *size* of these failures, we must examine the current liabilities of failing firms. Here, the pattern is quite different. The liabilities of failing firms were highest in mining and manufacturing. They increased from 95 million dollars in 1950 to 171 million dollars in 1954; in wholesale trade, liabilities rose from 34 million dollars to 56 million dollars; in construction, from 26 million dollars to 57 million dollars; and in commercial service, from 21 million dollars in 1950 to 33 million dollars in 1954. Price changes did not account for the increase in liabilities, since the price level had remained fairly constant during the period under study.

WHILE current liabilities of the firms which failed in each of the five segments of industry rose substantially, the increase was least noticeable in commercial service and wholesale trade. In mining and manufacturing, and in construction, the increase was very marked, indicating, no doubt, the increased cost of capital in these businesses. Thus, different industries entail different risks. A knowledge of these risks is essential for a man entering a new business.

Another significant question he should investigate is: What are the *growth* prospects of the business? But growth is not everything. Even if an industry does show great signs of development, there is no assurance that *every* firm which enters this field will be successful. The very fact that an industry promises expansion and profits tends to attract many persons to it. For example, it is unlikely that the rate of profits in the plastics fabricating industry is anywhere near as great as initial investors had anticipated. Knowledge of plastics was so widespread and capital costs were so low that many people got in on the ground floor, and the resulting fierce competition kept profits down. On the other hand, high incomes and comfortable fortunes have been made in such old lines as the restaurant business when established in growing areas.

ONE WHO is training to start a business of his own or to expand a small business is likely to ask himself: "Will the going be rougher than it was a generation ago, or fifty years ago?" No reasonable answer can be given. First of all, times have changed considerably since a generation or two ago. Market skills, both on the part of buyer as well as

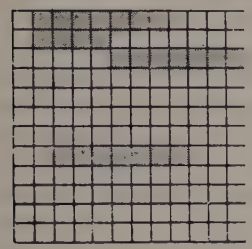
on the part of producer and seller, have increased enormously. The transportation system has expanded to a point where no market is completely isolated from any other market. Credit facilities are better. We are simply living in a different industrial world. Furthermore, comparison is difficult because we don't have very good statistics about the past, and the memory of one's father or grandfather about how he did it when he was a boy tends not to be very accurate.

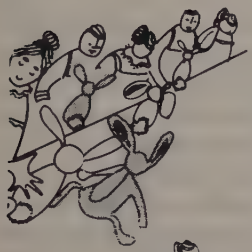
IN ANY event, the whole question of what happened in the past is quite meaningless, for we are concerned with what is going to happen in the future. It is clear that competition is going to continue to be great, and probably will become even sharper. In addition, and this has not been sufficiently accented, the consumer himself is better educated, is more aware of what he wants, and he can afford to be choosier in what he buys. Buyers want to know more about qualities and tests, and, as a result, salesmen are likely to have more technical knowledge today than they had fifty or sixty years ago. This is part of the growing up of the American economy and of our greater dependence on research, both in production and consumption.

Thus, while the dynamism of the American economy holds great prospects for people entering new businesses, it offers no assurance that *everybody* entering a new business will be successful. Furthermore, as new capital and new entrepreneurial skills are attracted to the various market places of industrial and business America, the businessmen with their investments already in the markets will have to continue to exercise all their intelligence and acumen. They will have to employ scientific procedures, lest the newcomers topple them from their good, safe, comfortable business chairs. Although the first entry into a new field may chart the course of business and discover the pitfalls for the second comer, business history teaches us that the wise may take advantage of the experiences and efforts of the daring. ■

Answers to True-False Quiz

(1) True (*see page 15*)
(2) False (*see page 40*)
(3) True (*see page 50*)
(4) True (*see page 59*)
(5) True (*see page 28*)
(6) False (*see page 6*)
(7) False (*see page 10*)
(8) False (*see page 19*)
(9) False (*see page 45*)
(10) True (*see page 24*)
(11) False (*see page 55*)
(12) False (*see page 32*)





Accurate projections of population enable all segments of the economy to plan for expansion

The Profit in Counting Noses

by Harvey Berman

THE BUREAU OF THE CENSUS in Washington announced recently that the nation's population had passed the 165 million mark, recording a rise of nearly 10 per cent since 1950. This substantial gain, although due partly to an increase in longevity, was primarily the result of our high postwar birth rate. Currently, eight new citizens are being born every minute. This means that every ten days we are gaining enough human beings to populate a city the size of Madison, Wisconsin. In a year, the baby crop totals four million or more.

Based on current trends, the Bureau of the Census estimates a population increase in the next twenty years of 63,300,000! Such projections are indispensable for sound future planning by business and government.

The United States has had sharp increases in population before, especially around the turn of the century. At that time, however, we also had unrestricted European immigration. The extent of that immigration could not be projected accurately, of course, because no one at the time knew how many people would come to our shores. Nor could we anticipate consumer demand and the effect on the labor supply, because immigrants were of all age levels.

Population growth under such circumstances could not be "chronological."

Today, with immigration rigidly controlled, the situation is altogether different. On the basis of reliable birth and death rates we can estimate the extent of future demands for the goods and services of business and social institutions at each of the age groupings from infancy to adulthood. By using such projections, it is now possible to plan well in advance to satisfy the future needs and interests of the American public.

As a matter of fact, industry and various public agencies already have begun to study the impact of some four million babies a year on social and productive facilities, with an eye toward preparing now for tomorrow.

Hospital authorities, for example, know that maternity wings will be taxed to the limit in the next two years and are planning now for expansion. In New York City maternity wards are currently being added to seven hospitals to meet the increasing demand for such facilities.

BUSINESS has also prepared for the baby boom. Utilizing population projections, Gerber, Swift and other baby food manufacturers began planning years ago for an increased market. Researchers found that the average American infant, when taken off his formula, consumes weekly, for one to two years, about four jars of prepared meat, six jars of fruit and seven jars of prepared vegetables. On this basis, food producers believe that American children will have consumed some fifteen billion jars of meat alone by 1976. And an official of the National Farmers Union estimated that these children will also account for a 25 per cent rise in milk consumption over the same period. Obviously, then, the nation's agricultural, dairy and food processing groups can plan for record sales in the years ahead.

Another aspect of business profoundly affected by the increased birth rate is the toy industry. In 1943, toy manufacturers began an expansion program which currently enables them to take in a healthy 150 million dollars annually for infants' toys alone. Naturally, as the babies grow, so will their demand for "older" toys. In the days of a lower birth rate, it was customary to construct toys that would interest a child for two or three years. Today, with a vastly

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Harvey Berman wrote this article on assignment for CHALLENGE. His work here is the result of a combination of first-hand interviews and extensive statistical research.

enlarged baby population and the means to predict accurately growth by age groups, it is profitable to design and produce a wider variety of toys to meet children's interests more fully and for shorter durations of time. Thus, toy consumption may be expected to rise markedly.

THE future impact of the baby boom on the shoe industry is more difficult to ascertain since the rate of foot growth may vary widely. Nevertheless, larger organizations such as Thom McAn have not been caught napping. They have already profited from the increasing sale of children's shoes and, as a result, juvenile shoe departments are being enlarged, often at the expense of the adult departments.

An excellent example of how population statistics are being used by business is to be found in the life insurance industry. Metropolitan Life and other large insurance companies expect a significant upsurge in life, annuity and endowment policies, and they are making plans now to handle the expected increase in sales over the next decade. As one insurance executive pointed out: "We are now able to project demand for various types of insurance, as affected by the birth rate, for many years to come. For example, the father of a child born in 1956 will purchase life insurance, if financially able, as soon after the birth as possible. The endowment policy should follow in 1960 in order to provide the youngster approaching school age with funds to attend college, should he later desire to do so. By 1974, the children of eighteen years back will be buying their first auto insurance, and policies in this field should surge."

CHILDREN born in 1956 will reach school age by 1961, creating extremely serious problems for the nation's educational system. Assuming an average class of thirty students—the accepted educational standard—132,000 elementary school teachers and almost as many classrooms will have to be added every year for the next twenty years. Yet, 60,000 educators are leaving their profession every year because of low salaries, poor facilities and heavy work loads. Meanwhile, fewer college students than ever before are preparing for careers in education. This presents a grave situation for American schools, and many communities have embarked on strenuous drives to recruit new teachers to meet the rapidly growing demand.

The significance of the current birth rate has not been missed by the television industry or by

the advertisers who support it. As early as 1945 they began to develop suitable programs for youngsters or, rather, programs which TV executives thought were suitable. The past year has seen a marked increase in specially tailored television shows designed to capture and sustain the interest of youngsters through the intermediate years until they are ready for adult fare.

America's clothiers, who have encountered rough going in recent years, may expect the full force of the baby boom to hit them within the next five years when children born in the early 1950s reach an age at which clothes become important. Some garment manufacturers are already using statistics of projected population growth in order to calculate the year-by-year demands of the various age groups. In this way they can plan well in advance of production the quantities and sizes that will be needed.

Actually, every major segment of the economy can now obtain the data necessary to plan for changing consumer patterns caused by a rising population. Automobile producers realize that by 1976 they may have to manufacture two million more cars annually to keep pace with expected demand. Construction firms can now begin to plan for increased housing needs by watching birth and mortality rates and by studying population projections and the rate of family formation.

A KEY year for the baby born in 1956 will be 1976, when he will probably be absorbed into the labor force. Around that time there will be an unusually large number of young men and women seeking employment, and industry frankly does not yet know where these position seekers will be employed. However, an expanded future population means an expanded market for goods and services, which in itself should go a long way towards creating the necessary jobs.

At any rate, we have plenty of time to prepare for long-term increases in our labor force. Using population projections to plan now for increased production in the years ahead, industry should have little trouble in making needed adjustments. In fact, every segment of the nation has an unparalleled opportunity for scientific investment and expansion by watching population trends and following what might properly be labeled a "blueprint for tomorrow." ■

current trends and outlook

Economics in Action

the business boom continues unabated —but shortages of labor and materials are restricting expansion efforts so that further economic gains will be harder to obtain

THE LEVEL of **business activity**, which continued to rise throughout the fourth quarter of 1955, is currently at an all-time high. **Consumer demand** is holding strong, and **expenditures** for plant and equipment are increasing steadily. No slackening is in prospect.

A recent McGraw-Hill survey concludes that **capital investment** in 1956 will reach the staggering total of $33.4 billion, 13 per cent more than in 1955. Meanwhile, normal winter slowdowns in the **food processing, construction, lumber**, and other **outdoor industries** are being offset by more-than-seasonal gains in **retail trade** and **increased spending** by state and local governments. **Machine tool** companies, **shipbuilders**, and **aircraft** manufacturers are flooded with orders. Numerous other major industries—**home appliances, railroads, oil, gas, farm equipment**, etc.—anticipate another profitable year.

Nevertheless, **economic growth** from here on in will undoubtedly be achieved at a more gradual rate than in 1955, due largely to restrictive conditions not atypical of a highly prosperous economy.

Chief among these is the **growing scarcity** of such important materials as **copper, nickel, aluminum, glass, cement** and **steel**. The **steel shortage** probably the most serious of all, is due in part to heavy **new demands** being made on the limited supply by steel producers themselves, in their efforts to expand capacity. As it takes 3 million tons of steel to build 10 million tons of new capacity, some producers find themselves in the awkward spot of competing for steel with their own customers.

Another factor tending to limit future gains in **industrial expansion** and **production** is the growing **shortage**, reported by the **Labor Department** last month, of **machinists, engineers, tool and die makers** and other **skilled workers** in many areas.

In addition, the November **increase** in the **Federal Reserve rediscount rate** from 2¼ per cent to 2½ per cent—the fourth increase in the past year—has resulted in a **tighter money market**. While this anti-inflationary policy would likely be reversed if signs of **economic softness** appeared, the boost serves at present to make credit harder to obtain.

The **business boom** will also tend to be slowed down by the continuing **drop in farm income**. Farm prices near the end of 1955 had fallen to **28 per cent below** the early 1951 (Korean war) high, and for farmers this downward trend means a steady **decline in earnings** and **spending**.

But most of the problems now facing our economy are, happily, problems of **prosperity**. The outlook of both **consumers** and the **business community** is decidedly good, at least for the first half of 1956. ■

For the commuter—

Portal-to-Portal Problems

by Robert Bedolis

Suburbia has made getting to and from work a headache for millions —and forced a new look into the economics of transportation

IT IS sometimes questioned, particularly by harassed presidents of railroads which operate commuter lines, whether commuters would be satisfied even under the most perfect transportation conditions imaginable. Some traffic students have suggested cynically that the commuter has a subconscious objection to traveling in the first place. According to this theory, the commuter will not be appeased until he can press a button and be transported, instantly and painlessly, from the breakfast table to the office.

That would be nice, but a push-button commuting process which would atomize protoplasm, transmit it at the speed of light, and then re-form it at its destination, is not yet on any drawing board.

Nevertheless, revolutionary answers to today's commuting problems must be found because the situation is steadily becoming ridiculous. Suburban population is growing at a faster rate than metropolitan population (registering a 27.8 per cent increase in the past five years compared to 3.8 per cent for major cities),

while most businesses remain in metropolitan locations. As a result, existing rail, bus and rapid transit systems are being strained to the limits by growing numbers of commuters.

A major effect of this population shift is that increasing numbers of automobiles are crowding the streets of metropolitan centers. In many areas, up to 80 per cent of suburbanites drive to work. That these jammed traffic conditions are likely to get worse before they get better is indicated by the fact that automobile registrations in this country have doubled in the past decade and now exceed sixty million with more to come.

Bumper-to-bumper congestion on business streets is often the rule even in nonrush hours, resulting in enormous losses of time and fuel. In New York City alone, the cost of traffic congestion is estimated at more than a billion dollars a year.

In view of such limited in-city traffic space, the wisdom of making it easier for commuter-automobiles to get to the city is questionable. On the contrary, a strong case can be made for keeping all private vehicles out of downtown areas, thus making it possible for the commercial vehicles, upon which the entire city population depends for its existence, to get about their business.

One would imagine that the railroads would be able to help solve the commuting problem. One railroad track can move sixty thousand commuters in an hour. To handle the same load a highway lane requires a continuously moving stream of at least 1,500 automobiles carrying a rush-hour average passenger load of as low as 1.7 riders.

Yet, the commuter railroads have not fared well. Despite the vast increase of suburban population, many lines have suffered severe passenger losses. New Jersey commuter lines, for example, carried 59 per cent fewer passengers in 1952 than in 1930. The Long Island Railroad, which went into bankruptcy in 1949, carried only 78,217,000 passengers in 1954 as against 118,190,000 in 1930. The LIRR's deficit has been running at about three million dollars annually, although frequent fare increases have been put into effect. Other eastern lines have been losing three to ten million dollars a year on their passenger operations.

In large part the decline in revenues is due to passenger dissatisfaction with grossly inadequate service. Late trains are far from rare. Many coaches are old and uncomfortable. Rush-

Robert Bedolis is a New York Herald-Tribune staff reporter specializing in transit and labor problems.

hour crowding is the rule. Terminal facilities frequently leave much to be desired. Parking areas at suburban railroad terminals are too small.

Irate rail commuters claim that many of the foregoing complaints could be remedied by the roads without outside financial help. But it is generally conceded by transit experts that given a passenger operation characterized by short hauls, low freight tonnage and the inefficiencies of a peak-load schedule—85 per cent of total riders must be carried from 7:00 a. m. to 10:00 a. m. and from 4:00 p. m. to 7:00 p. m.—most railroads cannot be expected to finance sweeping improvements in rolling stock, track and terminal facilities.

What then, short of attempting to decrease the population, which no one has suggested yet, can be done to assure every commuter a swift, comfortable journey at a reasonable price?

Let us consider the first steps that have already been taken to alleviate the intracity traffic glut. Some cities have already put into effect regulations restricting the entrance of private automobiles into business areas during rush hours. Unfortunately, local officials frequently hesitate to effect too far-reaching traffic regulations, which they fear may alienate the motoring electorate. Instead, they prefer to delay drastic measures until the congestion becomes so intolerable that the new regulations are praised by everyone, even by the motorists affected.

Actually, regulations restricting entrance to business areas would still leave huge numbers of automobilists willing to drive as close to the city as possible, and then take buses, subways, elevated trains or streetcars to their jobs.

To promote this type of combination-commuting, which would help to prevent overloading of commuter bus and rail lines as well as clear city streets, parking lots on the city's periphery are needed, with rapid transit connections to business and industrial areas. Many such parking facilities have already been built throughout the country and are being used increasingly.

AT THE same time, there are many things that can be done to improve mass transportation techniques. Let us take bus service first. New Jersey officials have stated they are willing to reserve certain highway lanes during rush hours for the exclusive use of buses. This would permit bus lines to offer a speedier express service that might attract an appreciable number of new riders. In addition, rush-hour express-

ways could be given a trial by converting conventional two-way highways into one-way routes. The bus-only lanes have the advantage of being negligible in cost, and they could be put into effect immediately.

To improve service further, many buses might be permitted to drive into the heart of the city —provided restrictions on private automobiles leave sufficient space. Facilities similar to the bus terminal constructed by the Port of New York Authority might also be tried in other parts of the country. Such a terminal, related in principle to the periphery parking lot, would help to keep commuter buses from delays on city streets and, in turn, would prevent additional bus congestion in downtown areas.

Compared to improvements in bus service, the cost and time involved in any sizable advance in rail service would be extremely high. Financing of new facilities will depend largely on the ability of lines to increase their incomes. In this respect, restrictions on driving private automobiles into the city might benefit the roads by influencing many drivers to switch to commuter trains, thus boosting passenger revenues.

Nevertheless, some experts feel that current railroad losses preclude chances for improved operations without direct or indirect tax-supported subsidies. New York City's Park Commissioner, Robert Moses, has proposed that communities served by commuter railroads cut real estate and other taxes to help compensate the lines for passenger losses. Those who argue in favor of subsidies point out that commuter lines, although frequently inefficient, carry much of the commuter load and, in most instances, are absolutely necessary as supplements to other commuting methods in view of their large capacities and high speeds.

Those who argue against rail subsidies insist that the railroads cared little and did less about keeping in step with commuter demands; that they did not anticipate future population trends with imagination; that subsidized highways are publicly owned and benefit all; and that the subsidies may be recovered by tolls.

WHILE the debate continues, railroads are experimenting with new electronic controls to cut costs, and future advances in technology may enable them to offer a better value for the commuter's dollar. Looking into the future, some traffic experts have predicted that electronically controlled, rubber-tired trains, requiring no crews, are not beyond probability. These trains of the future could operate cheaply on paved-over

lanes, on railroads' right-of-way or on specially built highways. Although such trains may seem fantastic, they were not conceived in a science-fiction framework. The idea stemmed from the search for a means of mass transportation that would provide the benefits of low maintenance highways, plus the advantage of fast, uninterrupted railroad service.

Less distant in the future is the development of helicopter commuting. Once the fare is brought within the range of average commuters, such service should prove a boon to the commuter in view of the tremendous savings in time. Austin J. Tobin, executive director of the Port of New York Authority and an expert on transportation trends, estimates that "within metropolitan areas helicopter services will reduce travel time from suburban areas by as much as 80 per cent."

ANOTHER estimate holds that by 1975, six million intercity and suburban passengers will be transported annually into the New York City area alone. However, Tobin warns against the notion that any flat rooftop can be developed as a port for multiple-passenger helicopters. His explanation is that fuel storage, refueling areas, shops for emergency repairs, elevators, working space for airline personnel and equipment rooms for electronic safety aids all demand a specialized structure. He further points out that the passenger heliports would also be peripheral, with bus or subway still required for transportation to the center of town.

THE first commuting helicopters will operate at relatively high fares. Most of those able to afford commuting tickets are expected to enjoy homes far out of the city. Therefore, an early result of helicopter transportation will be to extend the commuting range.

It is much harder to estimate when family-size or sport model helicopters, easily maneuverable for amateur piloting, will be available for general use.

Scientists and transit students no longer question the probability of this means of transportation. Rather, their current speculation centers about the possibility of vertical jet-thrust "hoverplanes" with special electronic traffic aids being developed in time to supplant the propeller-type helicopter even before it takes over a large share of commuter transportation. Of course, if this happens, new and perhaps more serious traffic problems would be with us, and commuters of the future will be complaining about the overcrowded condition of the air lanes. ■

More Gloom and Doom: Ricardo

Although history has refuted many of David Ricardo's gloomy theories, in his time they seemed to explain prevailing economic conditions

WITH THE exception of Adam Smith, David Ricardo is generally recognized as the most original and thought-provoking of the Classical economists. This is true in spite of the fact that his highly abstract theories were based upon assumptions that have been largely discarded. Ricardo was a most penetrating thinker whose closely reasoned analyses of rent, profits, value and labor cost were not easy to criticize at the time of their presentation. As the noted economic historian, Charles Gide, has commented, "Just as important (as his theories), perhaps, are the criticisms they aroused and the adverse theories they begot."

Ricardo, born in England in 1772, came from a Dutch-Jewish family, although he left the Jewish faith as a young man in order to marry the Quaker girl he loved. Like his father, he became a stockbroker and amassed a sizable fortune in less than fifteen years. Thus, he became one of the few really great economists who were as good at making money as at thinking about it. By the time he was thirty, Ricardo was able to retire to his estate and devote most of his time to intellectual pursuits. His duties as a Member of Parliament were rather light.

Ricardo's most important work was *The Principles of Political Economy,* published in 1817. Unlike Smith's *The Wealth of Nations,* which could be read and enjoyed by educated nonspecial-

ists, Ricardo's work was addressed to fellow economists, and, as a consequence, it is still difficult to read. The book contains practically no examples from the real world, and the economic argument is never fully integrated into a rounded social philosophy. On the other hand, Ricardo's theories did have an important, if indirect, bearing on some of the major economic problems of his time—the high cost of foodstuffs and the Poor Laws, to name but two.

Unlike most of his professional predecessors, Ricardo was primarily concerned with the distribution, not the production, of wealth. He set out to examine how wealth is apportioned among labor, capital and land in a freely competitive economy.

But in order to understand his thinking on wages, rent and profits, it is necessary to examine first his theory of value. According to Ricardo, "it is the comparative quantities of commodities which labour will produce that determine their present or past relative value, and not the comparative quantities of labour which are given to the labourer in exchange for his labour." In other words, the value of a commodity corresponds exactly to the amount of labor that goes into its production, not to the amount of labor that the commodity *can be exchanged for.*

The question Ricardo never satisfactorily answered was this: If labor alone creates value, how can we account for profits? Marx, who accepted Ricardo's labor theory of value, was to explain profits as value the capitalist has stolen from the worker. But this is an explanation Ricardo would never have accepted, for he believed that the capitalist performs an economically vital function and that production is impossible without him. In his later writings, Ricardo even implied that capital as well as labor produces value, although he never came out and said so directly. In any case, he himself was never completely satisfied with his labor theory of value.

RICARDO is perhaps best known for his doctrine of rent. High food prices were one of the major economic problems in England during the first three decades of the nineteenth century, when Ricardo did most of his writing. Why food prices were so high and what could be done to bring them down were, therefore, the burning economic issues of the time. Ricardo could not come up with a hopeful answer. His thinking was based upon a long experience of continuously mounting food

This is the tenth article of a series in CHALLENGE dealing with the economic development of Man.

prices caused by the inability of agriculture to meet the needs of a rapidly rising city population. Thus, his analysis was essentially pessimistic in its conclusions.

As population encroaches on the existing means of subsistence, less fertile land must be cultivated. But since it takes more labor to produce a given quantity of food on poor land than to raise the same quantity on more fertile land; and since value, according to Ricardo, depends on the quantity of labor needed to produce a commodity, then prices *must* go up. The only class that stands to benefit from high food prices is the landowning class, whose rents must rise as less fertile and more costly land is brought under cultivation.

As an example, let us suppose that an acre of first class land yields a bushel of corn as a result of ten hours of work and sells for ten cents per bushel. Eventually, according to Ricardo, second-class land will have to be cultivated which requires fifteen hours of labor to produce one bushel. To pay for the extra labor, the price of corn will rise to fifteen cents. The landlords of the superior land new enjoy a surplus of five cents. That surplus, according to Ricardo, is rent.

TEMPORARILY, agricultural improvements might keep food prices down by lowering the costs of food production. Even more important, the abolition of the Corn Laws, which imposed high duties on imported corn, would, Ricardo believed, bring down food prices.

The long-range outlook, however, is decidedly gloomy. As population keeps increasing, and as the sparse areas of the world become more densely populated (resulting in fewer imports), food prices are bound to rise.

What will this mean to economic progress? For one thing, it means that labor costs are bound to rise, since Ricardo believed that "the natural price of labour is that price which is necessary to enable the laborers one with another to subsist and to perpetuate their race, without either increase or diminution." Ricardo did not propose this subsistence theory as an "iron law" as later socialists were to do. He admitted that subsistence is relative and that it varies from time to time and in different countries. Even so, Ricardo believed that subsistence depends primarily upon the price of essential foodstuffs, particularly bread. And if the price of such foodstuffs were to rise constantly, as they would according to his rent theory, so would labor costs and prices. Not that the worker will benefit from higher labor costs; his bigger money

wage will buy exactly the same quantity of bread.

But that is not all. Ricardo held that wages and profits are the *only* costs in production. Therefore, "Whatever increases wages, necessarily reduces profits." Since food prices are bound to rise, and since this will cause wages to rise, profits will fall. This is so because, in Ricardo's words, "in the progress of society and wealth the additional quantity of food required is obtained by the sacrifice of more labour." The time may come, although Ricardo did not believe that day imminent, when the necessary wage will have absorbed everything, and nothing will remain for profit. If and when that day arrives, economic progress will no longer be possible.

Ricardo's writings, even more than those of Malthus, denied the optimism of Adam Smith. To Malthus' belief that it will become increasingly difficult to support a growing population, Ricardo added that this difficulty is caused by basic economic conflicts in society. In Ricardo's world, the worker, the landowner and the capitalist have irreconcilable interests. Whatever benefits the one harms the other two.

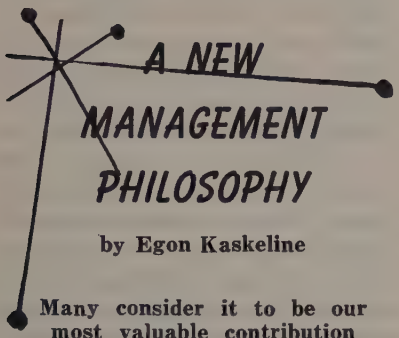
Ricardo's economic analyses reigned supreme in England for ten years after the publication of the *Principles*—as long as the pessimism appeared to be borne out by prevailing economic conditions. After that, his influence, while still considerable, tended to lose ground. The adoption of aspects of his thought by radical writers, notably Marx, undoubtedly contributed to this. But even more significant was the tremendous economic expansion that took place after the publication of his book, a development which obviously ran counter to the problems that Ricardo had held would be permanent. ■

NEXT MONTH: John Stuart Mill attempts to synthesize and humanize the theories of the classical economists

Destructive Insects

One acre out of every ten planted in the United States is still lost annually to insect damage, says the Twentieth Century Fund.

America's invisible export—



by Egon Kaskeline

Many consider it to be our most valuable contribution to European recovery

IF THE United States is indebted to Europe for the many benefits of the nineteenth century Industrial Revolution, the debt is now being repaid by the American exportation of her scientific management methods.

It is becoming rapidly more obvious that the greatest achievement of the Marshall Plan has been the modernization of European industry. No doubt, our money and machinery played an important role in rehabilitating a war-torn continent. But behind the money was an idea—the American insistence upon a dynamic economy. It is this idea, now taking root among our European friends, which will matter most, eventually.

In fact, Western Europe's recent advances toward prosperity —total output of Western European factories is now 70 per cent above prewar levels—are due less to the introduction of modern machinery than to the adoption of such basic American management techniques as budget control, cost accounting, inventory controls, marketing research, etc.

This development has brought about revolutionary changes in European business thinking. Europeans, like Americans, are now defining economic progress in terms of decreasing unit costs by means of constantly increasing productivity. More and more firms are shifting from the production of high quality products, for a static and limited market, to the mass production of standardized products for a rapidly expanding market. This shift, facilitated by the development of a new class of middle-income customers, is responsible for the growth in Europe of mass distribution systems similar to those of American companies.

Experts from the U. S. have joined with European government officials and private commercial representatives in spreading American management concepts among European businessmen. Nothing shows more clearly the influence of American methods in Europe than the growing popularity of productivity boards, business seminars and management discussion panels. This develop-

ment is to a great extent an outgrowth of the Marshall Plan and other U. S. sponsored aid programs for Western Europe.

The Technical Assistance Program was a first step in this direction, and, dollar for dollar, probably no other foreign-aid program undertaken by Americans has paid off so well. Under this Program, nearly 15,000 European industrialists, businessmen, technical experts, plant managers and trade union officials have been visiting the United States to study American methods in business and industry. Several hundred American experts went abroad to transmit their technical know-how to European industry.

As a result, an increasing number of European businessmen are learning that high productivity is not due solely to improved production methods but that it is largely the result of an efficient coordination of equipment, labor and management within a business enterprise producing for a mass market.

Installation of modern machinery, for example, was not enough to solve the postwar production problems of a Viennese manufacturer of electrical appliances. An American management expert traced the firm's troubles to antiquated methods of doing business. Upon his advice, modern business machinery was installed, changes in purchasing and sales methods were introduced, a complete overhauling of labor-management relations was initiated and, after some initial employee resistance, a new incentive wage plan was set up. Within a few months the business picture changed completely. Output per man-hour increased by 33 per cent, sales rose by 30 per cent and the workers enjoyed 25 per cent higher wages.

Similar improvements were made in Italian iron foundries, where substantial installations of new equipment had at first proved disappointing in terms of productivity and profits. A productivity team of American and Italian experts rearranged the machinery according to a more rational plant layout, introduced American methods of time and motion study, quality control, market research and inaugurated a more progressive approach to labor-management problems. Within three years, productivity had risen by 30 per cent.

Along with such progress in production, European businesses are taking drastic steps to simplify and standardize their output. Many products for which there has been relatively little demand have been eliminated from selling

Egon Kaskeline is a regular contributor to the Christian Science Monitor and Challenge.

lines. This has permitted greater concentration on those products that make up the bill of sales. This shift to standardized production for a mass market has brought about substantial price reductions in the consumer lines of British industries.

The same results are being attained in France. Invited by the French government to look into chaotic conditions in the French clothing industry, Mr. Mark Shaw, a United States consultant and chain store manager, went to work with Vestra Clothing Company, France's largest garment manufacturer. After his market survey disclosed weaknesses in the supply and sales organization, Mr. Shaw reduced the number of price lines from one hundred to four and eliminated fifty of the concern's seventy suppliers. Costs were slashed. As a result, Vestra's prices dropped 15 per cent, sales volume increased 40 per cent and productivity 30 per cent.

One of America's most important contributions to European business has been our approach to labor relations. Though it is American business which is frequently denounced for being "too technically minded," it is actually the European businessman who tends to regard economic progress largely in material terms rather than in terms of improved human relations. Labor-management relations, therefore, represent one of the toughest problems faced by American management experts in Europe.

As a rule, the worker in the United States is ready to accept technical or managerial changes because he believes progress in production will better his position as a consumer. The European worker, on the other hand, has a skeptical attitude toward "progress" because he believes that "big business" will pocket all the profits resulting from increased productivity. He also fears the spread of technological unemployment.

American business experts abroad have been spending some of their most difficult moments trying to convince European industrialists that workers should be considered as partners rather than as tools of production. European labor must also be assured that productivity increases will result in higher earnings for employees as well as for management.

The new personnel policy has opened new and freer channels of communication between management and labor as well as between upper and lower echelons of management. In addition, incentive wage systems have been adopted

to increase the worker's financial interest in higher productivity.

The utilization of a more personalized approach to labor problems has paid off handsomely for a French metallurgical firm at Etampes. After a trip to the United States, the company's business manager started a campaign to convince his workers that higher productivity would lead to higher wages and increased purchasing power. A company newspaper was launched, informative employee meetings were held, and workers' committees for recreation, health, safety and vocational training were established. The campaign resulted in higher productivity, higher wages and a healthy two-thirds cut in the absenteeism rates.

Discussion of plant problems on a basis of mutual respect created a congenial atmosphere in an Austrian iron foundry. There, under a new regime, workers were allowed to approach their employer personally. In addition, the company provided a plant doctor for regular employee visits, distributed birthday presents and, on holidays, organized labor-management parties. It is not surprising, therefore, that attendance and productivity improved substantially.

Of course, American methods cannot be transferred to Europe without adaptation to vastly different conditions. Europe, after all, is not the forty-ninth state of the Union. It has its own age-old economic, social and business traditions. To try to sell the advantages of American management methods, forgetting these basic differences, might prove both costly and wasteful.

The fundamental reason why Europe is seeking to adapt American management methods is that such methods are the only means of keeping industrial output in step with her rapidly growing population. Moreover, European goods must compete in the world market with those of other nations which, like the United States, may have more abundant raw material resources, or, like the Asian nations, can produce with much lower hourly labor costs. Western Europe's future depends on her ability to carry out successfully the technological and managerial revolution which the influence of American methods has brought about. ■

Challenge Quiz

HOW WELL can you do with this true-false quiz? Test your ability to increase your knowledge through reading. Ten correct answers is Excellent; 9, Good; 8, Average. If you do the quiz *before* reading the articles, 6 correct answers is Good. Answers on page 44.

(1) The tip of Antarctica is 600 miles away from South America.

True ☐ **False** ☐

(2) When business is brisk and profits are high, there are fewer business failures.

True ☐ **False** ☐

(3) New Jersey railroad commuter lines carried many more passengers in 1930 than in 1952.

True ☐ **False** ☐

(4) Output of Western European factories is 70 per cent above prewar.

True ☐ **False** ☐

(5) Large copper mining companies are leading the fight to keep copper prices down.

True ☐ **False** ☐

(6) The federal government buys more than 25 per cent of the nation's goods and services.

True ☐ **False** ☐

(7) Prices in 1929 were about 30 per cent as high as in 1955.

True ☐ **False** ☐

(8) The National Bureau of Economic Research offers advice on current economic issues.

True ☐ **False** ☐

(9) Two new citizens are born every minute in the U. S.

True ☐ **False** ☐

(10) Less than 1 per cent of U.S. farms are operated by giant, corporate farms.

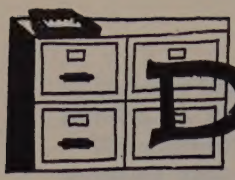
True ☐ **False** ☐

(11) David Ricardo, like Thomas Malthus, tried to find a place in the new industrial world for landlords.

True ☐ **False** ☐

(12) Hospital costs have risen more in the past 25 years than the cost of other services.

True ☐ **False** ☐



Dept. of Better Mousetraps

Personal Business: a pipe with a plain block of imported briar for a bowl. A sharp knife, a piece of sandpaper and you can own a pipe you've carved yourself . . . for travelers, checker and chess sets with magnetized pieces that stay put with the board upside down . . . for dull evenings, a headphone that buzzes as your head nods . . . a toothpaste product that comes in six-proof rye, scotch or bourbon flavors . . . a small blackboard on which to jot reminders for the day's favorite TV programs and their channels . . . an aluminum cylinder coffee cooler which, when dunked, carries out the heat . . . and, for tired executives, an electric massage cushion for use in the office to pep up circulation.

* * *

Kitchen Kuties: *an oven cleaner which is sprayed on the oven surface and is guaranteed to remove dirt and grease . . . and, an appliance that has a mixer on one end, a blender on the other and a knife sharpener on one side—all operated by one 300-watt motor.*

* * *

Around the House: a window spray which allows light to enter but prevents direct vision in . . . a rubber-covered extension cord on a reel with an electric outlet built into the hub, so that you unwind as much of the cord as you need . . . a clothespinless clothesline that holds the garments between two strands of plastic-coated wire . . . a do-it-yourself rug repair kit with rug cement, a nap-gathering tool and instructions for mending and cleaning . . . a candle trimmer to keep candles looking new . . . a prefab aluminum chimney for chimney-less houses . . . and, a hot water bottle that averages 10 degrees cooler on one side if you find the other side too hot.

* * *

From the World of Industry: *a water-driven dental drill whose cutting edge turns eight times as fast as present models, and therefore cuts faster and with less pressure . . . a vending machine which lends you a $5 certified check, costs 50c and allows 15 days for repayment . . . and, a clock that tells the time and date on Mars.*

* * *

Junior Department: a deflatable world globe that can be folded into a small package and is plastic-coated so that crayon marks can be erased . . . and, a nonsectarian Bible game, Going to Jerusalem. As players "travel" through Jerusalem, they become familiar with well-known Scriptural verses. ■